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A HISTORY

OF

MODERN PHILOSOPHY

A HISTORY

OF

MODERN PHILOSOPHY

(FROM THE RENAISSANCE TO THE PRESENT)

BY

B. C. BURT, A.M.

AUTHOR OF A "BRIEF HISTORY OF GREEK PHILOSOPHY," OF TRANSLATIONS OF ERDMANN'S "GRUNDRISS DER GESCHICHTE DER PHILOSOPHIE DES NEUNZEHNTEN JAHRHUNDERTS," AND HEGEL'S "RECHTS-, PFLICHTEN-, UND RELIGIONSLEHRE;" SOMETIME DOCENT (LECTURER) IN THE HISTORY OF PHILOSOPHY AT CLARK UNIVERSITY

In Two Volumes

VOL. I.

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PREFACE.

UNDERTAKING only to a limited extent the higher logico-genetic development and the complete and final valuation of ideas and systems of thought, the present work aims primarily merely to present with considerable fulness, and as simply and clearly as may be consistent with scientific accuracy, the principal content of the leading systems (and partial systems) of philosophy in modern times, together with a reasonable amount of information regarding philosophical authors and works. It aims to be something more than a mere "chronological" account of systems, authors, and works; to show, in a general way, at least, the actual historical connections of systems, — *i.e.*, to exhibit the historical continuity of modern philosophical thought, and, further, to furnish materials and stimulus to the student for the study of the higher genesis and final values of ideas and systems. The paragraphs of characterization (marked *Result*) are of course intended rather as helpful suggestions than as complete, absolute statements of final truth. It seems not out of place to remind the reader that where, as almost necessarily in a case like the present, a work contains numerous quotations, direct and indirect, and adaptations from a great variety of authors, a certain heterogeneity and lack of smoothness in style is inevitable. The apparently disproportionate length at which certain recent systems are treated will find sufficient excuse, it is assumed, in the fact that they have not as yet become commonly known through other histories of philosophy. For the benefit of

readers unfamiliar with German and Italian, the titles of the principal philosophical works in these languages have been translated.

In the preparation of the present work the following-named authorities have been chiefly depended upon: —

WORKS OF THE PHILOSOPHERS

(ORIGINALS AND TRANSLATIONS).

Noack's "Historisch-biographisches Handwörterbuch zur Geschichte der Philosophie" (1879).

Zeller's "Geschichte der neuern Philosophie seit Leibniz" (1873).

Erdmann's "Grundriss der Geschichte der Philosophie." (Also the translation of the same, made in part by the present writer.)

"Dictionnaire des Sciences Philosophiques," etc., edited by M. Adam Franck (1875).

Volumes in "Blackwood's Philosophical Classics," edited by Professor Knight.

Volumes in Griggs's "Philosophical Classics," edited by Professor Morris.

Volumes in "English Philosophers," edited by Professor Monck.

Articles in the "Encyclopædia Britannica."

Ueberweg's "History of Philosophy" (Morris's translation, vol. ii., containing also histories of English and of American Philosophy, by Ex-President Porter, and a "History of Italian Philosophy," by Professor Botta).

Fischer's "Geschichte der neuern Philosophie" (also translation of vol. i. of the same by J. P. Gordy).

Stöckl's "Lehrbuch der Geschichte der Philosophie" (1870).

Schwegler's "Handbook of the History of Philosophy" (Stirling's translation).

Morris's "British Thought and Thinkers."

McCosh's "Scottish Philosophy."

Articles in "Journal of Speculative Philosophy."

To some extent, also, the Histories of Hegel, Michelet, Lewes, Morell, Fortlage, Windelband, and Willm and Erdmann's larger work, have been used.

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A

HISTORY OF MODERN PHILOSOPHY.

INTRODUCTION.

§ 1.

The General Character and the Main Divisions of Modern Philosophy. — Modern Philosophy, as distinguished from Mediæval Philosophy, is occupied with the immanent and concrete, rather than the transcendent and abstract; with the natural and the human, rather than the supernatural and the superhuman. As distinguished from Ancient Philosophy, it is occupied with the subject, rather than with the object; with thought, rather than with being. It may be quite easily divided into three great periods, as follows: 1. A period predominantly of reception and appropriation (though with considerable self-assertion as against mediævalism); 2. A period of original effort very largely destructive or negative (towards previous philosophy as well as the object of thought generally); 3. A period of equal originality, and more constructive or synthetic effort. Psychologically speaking, these periods may be viewed as, respectively, periods of (receptive) sense, (analytic) understanding, and (synthetic) reason; logically, as periods of thesis, antithesis, synthesis. The first period extends from the middle of the fifteenth century to the beginning of the seventeenth; the second, from the beginning of the seventeenth century to the third quarter of the eighteenth; and the third from the third quarter of the eighteenth century, onwards.

DIVISION I. FIRST PERIOD OF MODERN PHILOSOPHY.

§ 2.

General Characteristics of the First Period of Modern Philosophy. — The beginnings of Modern Philosophy formed a part of the general human awakening in Europe in the fourteenth and fifteenth centuries. This awakening was, as every one is well aware, an awakening from a sort of "dogmatic slumber," in which human thought was wrapped up in the idea of a supra-mundane world, answering, as it now seems, to fancy and mere feeling, rather than to active sense, healthy understanding, and reason; in which, along with logical acuteness, there existed a certain enslavement to preconceived ideas, and to authority in intellectual things. At the beginning, Modern Philosophy was, on the one hand, a revolt against a philosophy which, both by its content (which was constituted by the abstract and transcendental) and by its form (which was either mystical or else pedantically logical) had come to be wanting in power to satisfy a real human interest; on the other hand, an endeavor to substitute for that barren philosophy something more worthy of a strong consciousness of human dignity as such, and of the wealth and grandeur of visible Nature. This double character attaches to almost every form of early Modern Philosophy, until, so to say, it reaches its majority, and even after that time; so that every new system, whatever else it may also be, is a protest against mere Scholasticism. The substitutions made for Scholasticism were in various directions, and of various degrees of completeness and originality. The revival of ancient learning and literature placed within the reach of the new impulse to philosophic thought — accompanying and supporting like impulses in literature, the arts, and the sciences — a noble wealth of ancient philosophical literature, which was eagerly seized upon and made the basis for

various schools of rehabilitated ancient philosophy. The new religious movement, Protestantism, found in ancient thinking (but to some extent also in mediæval though non-scholastic mysticism) a stimulant and possible helper, which it associated with itself and adapted to its need. The cultivation of the natural sciences by both empirical and speculative methods furnished material and basis for a philosophy of Nature; the actual political conditions of the period, and the revival of the political doctrines of the ancients (particularly of Plato and Aristotle), presented occasions for the framing and putting forth of systems of political philosophy. It is possible to distinguish definite degrees (three in number) of originality or independence of philosophical effort in this first period of Modern Philosophy. There is (1) the relatively passive reception of the ancient systems, as such; (2) the adaptation of ancient and mediæval systems to religious or theological uses; (3) a relatively independent cultivation of philosophical conceptions into systems of Nature-philosophy on the one hand, and political philosophy on the other. We have, then, in the treatment of the first period of Modern Philosophy, three grand divisions, which may be denoted as follows: The Rehabilitation of Ancient Systems; The Association of Philosophy with (Protestant) Theology; The (Relatively) Independent Cultivation of Philosophy on its own Account.

§ 3.

I. The Rehabilitation of Ancient Systems of Philosophy. — The ancient systems of thought rehabilitated were, naturally, principally those of (1) Plato and the Neo-Platonists; and of (2) Aristotle. Other systems rehabilitated were (3) Ciceronianism; (4) Stoicism; (5) Scepticism; (6) Ionicism; (7) Epicureanism.

§ 4.

(1) *Platonists and Neo-Platonists.* — Chief among the revivers of Platonism and Neo-Platonism were Georgius

Gemistus Pletho (*circa* 1355–1450), who was a learned Greek at the court of Cosmo de' Medici in Florence; Bessarion of Trebizond (1395–1472), likewise a Greek, and a pupil of Pletho; Marsilius Ficinus, or Marsilio Ficino (1433–1499); Giovanni Pico, of Mirandola (d. 1533); Johannes Reuchlin, the renowned German humanist (1455–1522); Agrippa of Nettesheim (1487–1535); Carolus Bovillus, or Charles Bouillé (1470–1535); and Jacques Lefèvre (1455–1537), professor in the University of Paris.

§ 5.

Pletho. — Pletho not only enthusiastically expounded and defended Platonism and Neo-Platonism, but vigorously attacked Aristotle and his doctrine. Unlike most of the revivers of ancient systems, Pletho was non-Christian in his theology, and desired to substitute Platonism for Christianity. Two works of Pletho bear the titles "De Platonicæ et Aristotelicæ Philosophiæ Differentia" and Νόμων Συγγραφή.

§ 6.

Bessarion. — Bessarion was a more temperate admirer of Plato, though he too combated (discreetly) the doctrines of Aristotle, as maintained by George of Trebizond. He considered Plato more in accord than Aristotle with Christian dogma. He rejected the Platonic doctrines of the pre-existence of the soul, the plurality of gods, and the world-soul. The chief work of Bessarion is entitled "In Calumniatorem Platonis."

§ 7.

Ficinus. — The lectures of Pletho upon Platonism led to the founding at Florence by Cosmo de' Medici of a Platonic Academy. Of this, Ficinus, who had been a successful translator of the works of Plato, Plotinus, and others of the same general school, was made the first director. Ficinus, it is related, had in his private apartments but a single picture, that of Plato, — before which a light was continually

kept burning. He advocated the reading of the works of Plato along with the Hebrew-Christian Bible in church. The chief work of Ficinus is "Theologia Platonica de Animorum Immortalitate" (1482).

§ 8.

Pico, Reuchlin, Agrippa, Bovillus. — Pico, Reuchlin, Agrippa, Bovillus, "blended with the Neo-Platonism Jewish Cabalistic doctrines, — took a step in the direction of what was almost pure nature-philosophy." Pico taught that the "bond of union between God, man, and the world in their common perfection is Christ, the God-man; that man knows and possesses God the more perfectly the more he employs the powers of knowing and willing natural to him; but this natural happiness is merely a shadow of the supernatural which man attains to through the in-working of God." Works of Pico are "Apologia" (1489), "Oratio de Hominis Dignitate" (1496), "Disputationum adversus Astrologos" (1496). — Reuchlin opposed Aristotelianism and Scholastic supersubtleties; and maintained that there is no knowledge of the supersensible without faith. Works of Reuchlin are "De Arte Cabalistica" (1517); "De Verbo Mirifico" (1494). — According to Agrippa, the highest branch of philosophy is Magic. This is of three sorts: natural magic, which teaches the miraculous use of earthly things; heavenly or celestial magic, which has to do with the drawing down to earth of the influences of the stars; and religious magic, which teaches the art of obtaining from supernatural sources miraculous appearances. Magic controls the secret powers of the universe. Besides natural endowment in man, faith and a laborious study of theology, physics, and mathematics are prerequisites to the acquirement of the powers of the magician.[1] The chief work of Agrippa is entitled "De Occulta Philosophia" (1510); other works are "De Triplici Ratione Cognoscendi Deum,"

[1] Noack.

"De Vanitate et Incertitudine Scientiarum." — Bovillus teaches that philosophy leads to self-knowledge and union with God, that science is union of subject and object, that intelligence is the perfection of faith, that the universal is prior to the particular in knowledge, that the highest knowledge of God is ignorance, that the soul and matter and the visible world are immortal, that matter is the middle term between being and not-being, that creation is a free act flowing from the pure goodness of God. Works of Bovillus are "Liber de Sensibus," "Liber de Intellectu," "Ars Oppositorum," etc.[1]

§ 9.

(2) *Aristotelians.* — The attacks of Pletho and Bessarion on Aristotle called forth replies from Gennadius, Patriarch of Constantinople (died *circa* 1454), and George of Trebizond (1396–1486), both of whom, besides being expounders of Aristotle, were defenders of traditional Christianity. There were various other scholars in the fifteenth century who translated or commentated the works of Aristotle. Jacques Lefèvre (the Platonist already mentioned) is said to have gone directly to the original sources for his Aristotelianism. In northern Italy — at Padua, Venice, and Bologna — Aristotelianism was taught and defended by two rival schools of philosophers known as Averroists and Alexandrists (followers of Alexander Aphrodisias, of the second century A. D.). The rise of the Alexandrist school was doubtless owing to existing sympathy with increasing humanism and naturalism, as opposed to the mystical pantheism of Averroës. An important point of difference in the controversy between the schools was that the Averroists maintained that the active reason in man was an emanation from the Deity, and the Alexandrists that it was not so, but a part of the universal reason, both schools, however, denying immortality.

[1] Noack.

§ 10.

Averröists. — Among the Averröists were Alexander Achillinus (d. 1512), professor of medicine and philosophy at Padua and Bologna; Augustinus Niphus (1472–*circa* 1550), physician and astrologer; Giacomo Zabarella (1533–1589), professor of philosophy at Padua; Cesare Cremonini (1552–1631), successor of Zabarella at Padua. — Zabarella is sometimes described as an "Averröist in physics, and an Alexandrist in psychology." Sensible knowledge, he says, is confused, and must be subjected to logical tests or a scientific method to become certain and true. The existent is always individual, though the *principium individuationis* is form, and not matter. Eternal motion presupposes an eternal mover separate from all matter. The active intellect is not one in all men. Works of Zabarella are "De Rebus Naturalibus Libri triginta" (1594), "Opera Logica" (1579), "Commentaria in Aristotelis Libros Physicorum" (1602), "In Aristotelis Libros de Anima." Zabarella has the credit of having had a truer appreciation of the importance of scientific method than any other Aristotelian of his time. — Cremonini has been called the last of the "Aristotelians in Italy." He cannot be credited with the true scientific or (for that matter) philosophic spirit, since he refused to look through the telescope, because he feared the upsetting of his physical theories as a consequence of doing so.

§ 11.

Alexandrists. — Of the Alexandrists, the following seem the most worthy of mention: Leonicus Thomæus (1456–1533), professor of philosophy at Padua; Andreas Cæsalpinus (1519–1603), a professor of natural history; Petrus Pomponatius, or Pietro Pomponazzi (1462–1524), said to have been the "most influential professor of philosophy of his age." — Thomæus went to the original Aristotle, and strongly advocated the doing so. His philosophical intelligence appears in his teaching the substantial agreement of

the doctrines of Plato and Aristotle. — Cæsalpinus tries to explain Aristotle apart from the commentators. His doctrine is briefly stated as follows: Knowledge is of the universal definite conception, which is knowledge of substance, unites matter and form. All things are mediately or immediately living. God is the universal mind, above human comprehension: he is pure spirit. The soul, which unites the parts of the body, is pure form: it is immortal. After death, it remains joined to the pure universal matter. The perception of the One in all things is true divine happiness. Works of Cæsalpinus are "Quæstiones Peripateticæ" and "Dæmonum Investigatio." — Pomponatius[1] (born at Mantua) studied medicine and philosophy at the University of Padua, and afterwards occupied the chair of philosophy there. Among the works of Pomponatius are the following: "Tractatus de Immortalitate" (1516), "De Incantationibus" (1520), "De Fato, libero Arbitrio et Prædestinatione" (1523), "Apologia" — against Contarini — (1517), "Defensorium," — against Niphus, — the last two having special reference to the doctrine of immortality. Pomponatius expresses the highest reverence for the philosopher in general, and for Aristotle in particular: the philosopher, he says, is to the ordinary human being as a real man is to a painted one, — he is a god among men. The philosophy of Pomponatius is principally occupied with the three problems, — of the immortality of the soul, of the influence of the spiritual world upon the material, and of the relation of divine providence to human liberty and destiny. Pomponatius asserts that, on the principles of the philosophy of Aristotle (which he accepts), the doctrine of the immortality of the soul cannot be maintained, — the soul, as the entelechy of the body, cannot be active without the body; and thought, in the proper sense, cannot be carried on without sensible images. On the whole, Pomponatius thinks "the question of the immortality of the soul, like that of the immortality of the world,

[1] Franck.

is a question which reason cannot decide either affirmatively or negatively, upon which God alone can afford us certain knowledge. For myself," he adds, "it suffices that Saint Augustine, who is of higher authority than Plato and Aristotle, believed in immortality." That is, Pomponatius professed "as a philosopher" not to admit the doctrine of the immortality of the human soul, but "as a man" to accept it, — a position sufficiently significant as to the conceived relation of philosophy to theology in his age. (The mere "consistency," or want of "consistency," of such a position is perhaps best shown up by a reply made by the satirist Boccalini to this saying of Pomponatius: "It is necessary to absolve Pomponatius in so far as he is a man, but to burn him as a philosopher.") Pomponatius explains the "universality" of the belief in immortality as an effect wrought by priests in the interest of religion; but he thinks the appeal to the future an unscientific one, since virtue should be its own reward. Pomponatius attempts to justify his dualistic philosophical attitude by means of a distinction between speculative and practical reason, — the former of which (as well as the latter) belonging to the philosopher alone; the latter (only) to men in general. If reason is thus absolutely dualistic, the position of Pomponatius was a natural, though an uncomfortable and compromising, one, as he himself seems to have felt.

§ 12.

(3) *Ciceronians.* — The fact of a newly-arisen life of thought, as opposed to the dryness of the Scholastic understanding, had, as a natural, though not, perhaps, a very profound, consequence, the coming into existence of a school of thinkers who hated and vehemently antagonized Scholastic logicism in general, — its over-refinement, or false subtlety, and its barrenness. This is the school of the Ciceronians, — Laurentius Valla, Rudolph Agricola, Ludovicus Vives, Marius Nizolius, Petrus Ramus, and others. — Laurentius Valla (1407–1459) affirmed that "dialectic"

(logic) is merely an aid to rhetoric, which should be substituted for it; that virtue is really virtue only when sought for the sake of pleasure; that human freedom and divine providence are merely matters of faith. — Rudolph Agricola (1442–1485) combated Scholastic subtleties, and advocated a philosophy of "common sense." The only rule of knowledge, he affirmed, is the rule of probability. Ethics is the principal part of philosophy. Our ultimate resort must be to Scripture. — Vives (1492–1540) advocated humanism as opposed to Scholasticism, and the rule of probability as opposed to demonstration so called. The Nominalists and Realists, he thought, occupy substantially the same ground. Of the soul we can know only the attributes and the operations, not the nature. The existence of God is for us a moral need, not a theoretical certainty. We must interrogate Nature: "only through direct investigation, by way of experiment, can Nature be known." Works of Vives are "De Prima Philosophia" (1531), "De Anima et Vita" (1538). — Marius Nizolius (1498–1575), likewise, opposed Scholasticism and advocated the substitution of rhetoric for metaphysics and dialectic, and the employment of empirical methods — "induction" — in the search for truth. A work of Nizolius, "De veris Principiis et vera Ratione philosophandi contra Pseudophilosophos Libri quatuor" (1553), was reissued by Leibnitz in the seventeenth century. — Ramus (1517–1572) graduated from the Sorbonne, and (in 1551) received the appointment of professor of philosophy and eloquence in the Collège de France. Violent opposition on his part to Scholasticism brought upon him theological odium, to which he fell a victim in the celebrated massacre of St. Bartholomew. Ramus's works number upwards of fifty: among them are "Aristotelicæ Animadversiones" (1543), "Dialecticæ Partitiones" (1543), "Institutiones Dialecticæ" (1547), — nearly the same as the one preceding. Ramus was a special student of the works of Cicero, Quintilian, Plato, and an avowed follower of Valla, Agricola. Nizolius,

and Vives. He denounced the Aristotelian logic as artificial, and without value for a real dialectic, and sought to merge logic into rhetoric. He laid stress upon the theory of judgment, which he viewed as also a theory of memory and its right use. There are, according to him, three stages of judgment: 1. Syllogistic inference; 2. Combination and arrangement into a self-consistent whole of propositions of like kind and import (a process which involves some uncertainty in the result); 3. The reference of the scientific truth obtained by these forms of judgment to God, and the attempt to see God in all things, — to the end that we may be incited to the praise of God. Ramus's improvements (?) upon the old logic have (unfortunately) been largely followed by modern logicians. He had many followers, and excited much opposition; and for a century or more, logicians as a class, throughout Europe, were divided into Ramists, Anti-Ramists, and Semi-Ramists, — chief among the Anti-Ramists being a certain Antonius Goveanus, colleague of Ramus at Paris. In conclusion, it has to be remarked that the "Ciceronians" present traits which make them forerunners of Francis Bacon, generally regarded as the founder of modern empiricism.

§ 13.

(4) *Stoics.* — As revivers of Stoicism may be mentioned Justus Lipsius, or Joost Lips (1547–1606), teacher in the universities of Leyden and Louvain, and author of works entitled "Manductio ad Stoicam Philosophiam" (1604) and "Physiologiæ Stoicorum Libri III." (1610); and Caspar Schoppe, or Scioppius (1576–1649), author of "Casparis Scioppii Elementa Stoicæ Philosophiæ Moralis quæ in Senecam, Ciceronem, Plutarchum, aliosque Scriptores Commentarii Loco esse possunt" (1608).

§ 14.

(5) *Sceptics.* — Revivers of Scepticism were Michel de Montaigne (1533–1592), Pierre Le Charron (1541–1603),

François Sanchez (1552–1632). — According to Montaigne, the true philosophy is, not to depend too much on philosophy. Human knowledge as such is bounded by the senses; which are, obviously, unreliable guides to substantial truth, since they are contradictory and variable in their reports. The more we learn, the more ignorant we become. Human reason must be supplemented by faith, acceptance of Revelation. The first virtue of man is submission and obedience to God. The Scepticism of Montaigne did not (Erdmann thinks) include the ataraxy, or impassivity, of Pyrrho, but was rather a part of that general tendency towards the practical, as distinguished from the mediæval, worldliness. For Montaigne's views, see Book I. Essay XII. of his celebrated Essays. — Le Charron — an advocate, theologian, famous pulpit orator, and friend of Montaigne — teaches that knowledge comes, not through the senses, but from the inner depths of the soul, in "which are implanted the germs of science and virtue." The mere understanding is the source of all human evils. Human welfare depends on the will solely. To attain wisdom man must free himself from passion (which originates in the sensible region of the soul), must desire little, and that only which accords with nature, must hold his judgment always open for the reception of new light, since human knowledge is never more than a greater or less degree of probability. Le Charron's views are contained in a work entitled, "De la Sagesse" (1601, 2d edition 1604). — Sanchez — a graduate in medicine, a superintendent of an infirmary, teacher of medicine and philosophy — combats Scholastic subtlety, preaches the vanity of human knowledge, and advocates a "Christian Philosophy." We can know nothing, since things are infinite in number, and even if they were numerically finite, their connections are infinite. So-called universals are creations of the fancy: only individuals really exist. Through the senses we learn only of the accidents of things, not of their essence. By self-consciousness we apprehend merely mental phenomena, —not

the essence of the soul itself, — and these only imperfectly, since they are continually varying and without definite outlines. Reflection, too, can give only confused and uncertain results. Our only recourse is "Christian faith." Works of Sanchez are "Tractatus de multum nobili et prima universali Scientia, — quod nihil scitur" (1581), his chief work; "De Divinatione per Somnum ad Aristotelem;" "De Longitudine et Brevitate Vitæ." — In addition to the foregoing Sceptics, may be barely mentioned François de la Mothe le Vayer (1586–1672), Simon Foucher (1644–1696), Joseph Glanvil (died 1680), Hieronymus Hirnhaym (died 1679), Pierre Daniel Huet (1633–1721), and Pierre Bayle (1647–1706), author of the celebrated "Dictionnaire historique et critique" (1696).

§ 15.

(6) *An Ionicist.* — The early Ionic philosophy was revived by Claudius Berigard (1592?–1663?), professor in Pisa and Padua, in a work entitled "Circuli Pisani seu de Veteri et Peripatetica Philosophia Dialogi" (1643).

§ 16.

(7) *An Epicurean.* — Epicurean doctrines, blended with Christian theology, were taught by Pierre Gassendi (1592–1655). Gassendi took courses in the College of Digne and the University of Aix, and afterwards lectured in these institutions of learning. Later he was professor of mathematics in the Collège Royal. He entered the priesthood, and was at one time provost of the cathedral of Digne. Gassendi numbered among his friends some of the most eminent scientists of his age, — among them Descartes and Galileo, — was himself well informed in the early modern sciences, and may be regarded as a link between the first and second eras of modern philosophy. Philosophical works of Gassendi are, — "Exercitationes paradoxicæ adversus Aristoteleos" (1624), "De Vita, Moribus, et Doctrina Epicuri Libri octo" (1647), De Vita, Moribus, et Placitis Epicuri,

seu Animadversiones in X. Librum Diogenis Laertii" (1649), "Syntagma Philosophiæ Epicuri" (1649), the last-named being his principal work. He was the author of works in physical science possessing some value. At one time inclined towards the revived Aristotelianism, Gassendi was prevented from remaining an Aristotelian by the study of the natural sciences in their modern character. He sought reconciliation between "science and religion," and found it, as he thought, in a modified Epicureanism. Philosophy, according to Gassendi, is the pursuit of wisdom. Its parts are Physics (whose object is truth) and Ethics (whose object is virtue), Logic being merely propædeutic to philosophy proper. The path of knowledge lies between scepticism and dogmatism. There are no innate ideas. All knowledge originates in sense-perception, from the data proceeding from which reason deduces causes and arrives at universal ideas. The first principle and matter of things is the atom. Atoms differ in magnitude, weight, and form. The number of atoms is not, as Epicurus taught, infinite, but finite: the same is true of the extent of space. Atoms are not eternal *a parte ante*, but were created by God; the world formed of atoms is not a product of chance, but a work of providence. The world and mankind were created to receive and manifest the goodness of God. All creation culminates in man, who alone is capable of leading the world or creation back to God. In all men there is a certain presentiment of a divine nature and a providence sustaining all things, — a doctrine, we may observe, not quite consistent with the denial of "innate ideas." Man possesses both a material and a rational soul, having a joint seat in the brain; the rational soul is not, as Epicurus taught, composed of minute fiery atoms, but is simple and immaterial, and immortal, since it possesses a knowledge of the supersensible and universal, etc. Freedom of will is indifference of choice, resulting from indifference in the understanding. The object, directly or indirectly, of all our effort is pleasure, or painlessness of body, and peace

of soul: the virtues are merely safeguards against hindrances to pleasure or happiness.

§ 17.

II. THE ASSOCIATION OF PHILOSOPHY WITH (PROTESTANT) THEOLOGY. — Next after the revivals of ancient systems of thought, and before the first original and independent efforts coincident in time with them, we may consider the efforts of philosophical thought in the service of and at the same time aided by the at least would-be free spirit of the Protestant religion. Protestantism, a religion of "faith," felt the need of a certain basis in "reason." The chief Protestant, Martin Luther, abhorred philosophy, whether Scholastic or ancient; but Melanchthon, the associate leader of the Protestant movement, was clearly convinced that without positive method and dogma, as educational instrumentalities, Protestantism as a practical movement must succumb to confusion, to want of organization; and he taught and wrote energetically and thoroughly in accordance with this conviction. Besides Melanchthon, have to be treated in the present connection Nicolaus Taurellus, and the so-called "Mystics" Sebastian Franck, Valentin Weigel, and Jacob Boehme. For distinction's sake, we may style Melanchthon and Taurellus Semi-Rationalists.

§ 18.

(1) *Philip Melanchthon* (1497–1560), the "teacher of the whole German world in philosophy, as well as in theology," was educated at the Academy of Pfortzheim and at the Universities of Heidelberg and Tübingen, at which latter university he studied law, medicine, and theology. Brilliant scholarship secured for him, soon after graduation, a professorship in Greek in the University of Wittenberg. Here he taught in the spirit of the Renaissance, and especially labored to make Greek philosophy a source of advantage to Protestantism. As a teacher of Greek he awakened the admiration of Luther, and became associated with him in

the revision of his translation of the Bible and the carrying on of the Reformation so-called, his objective intellectual equanimity and conservatism supplementing the subjective moral intensity and radicalism of Luther. He has been called the scribe of the Reformation, as having drafted "most of the public documents" of the "Reformers."

Works. — Melanchthon's philosophical works (mostly text-books) are, — "Dialecticæ Libri IV." (1520), "De Anima" (1520), "Initiæ Doctrinæ Physicæ" (1547), "Epitome Philosophiæ Moralis" (1538), "Ethicæ Doctrinæ Elementa" (1550), and "Declamationes" (1544–1586), which consists of discourses on ancient philosophy, the practical value of philosophy, etc.

Philosophy. — Melanchthon taught a somewhat modified Aristotelianism. He seems to have adopted in full the Aristotelian logic, adding to it certain principles borrowed from Cicero and Christian theology, as that the sources and criteria of knowledge are, besides logical inference, universal experience, or *consensus gentium*, innate ideas, and the truths of Revelation. With a perceptible leaning, in metaphysics, towards Plato (with whom, however, he regarded Aristotle as in substantial accord), he adopted the Aristotelian physics (except as to the doctrine of the eternity of the world), the Aristotelian psychology (except as to the doctrine of the future life), and the Aristotelian Ethics, Christianized somewhat. In Melanchthon's Christianized Aristotelian Ethics, the moral law is God's will; virtue is the knowledge of God and obedience to him; Revelation (the Decalogue in particular) the highest statement of moral truth; natural right comprises innate universal principles (together with their consequences), and is based, as "regards duties to God, upon the dependence of creature on the Creator, as regards duties to fellow-men, upon the necessity of human society;" positive right consists of the enactments, depending on circumstances, of civil authority; civil authority is directly of and from God; the state, though not to be ecclesiastically ruled, must cherish religion,

enact no laws contrary to the divine commandments, and be subject to the condition that religious necessity may make it right that the citizen resist authority, and even, in case of tyranny, murder the civil ruler. It has been maintained, apparently with perfect justice, that except in the departments of natural and civil law, Melanchthon's philosophy was entirely borrowed; that by his "substitution of the Bible for canon law" he helped to promote the evolution of the philosophy of law.[1]

§ 19.

Nicolaus Taurellus (1547–1606). — Taurellus studied theology and philosophy at the University of Tübingen, and took the degree of doctor of medicine at the University of Basel. He was successively physician to the Duke of Würtemburg, professor of philosophy and medicine at Basel, and professor in the same sciences at Altdorf.

Works. — Works of Taurellus are "Philosophiæ Triumphus, seu metaphysica philosophandi Methodus" (1573), "Synopsis Aristotelis Metaphysices ad Normam Christianæ Religionis Explicatæ, Emendatæ et Completæ" (1596), "Cosmologia" (1603), "De Rerum Æternitate" (1604), etc.

Philosophy. — Taurellus seeks to "free philosophy from the fetters of (Scholastic) Aristotelianism and to bring it into harmony with the fundamental doctrines of Christianity." Philosophy is a propædeutic or intellectual preparation for theology: it shows men their spiritual ignorance, and points the way to that which alone is capable of satisfying their spiritual needs. It is that "knowledge of things human and divine which we obtain by the inborn power of thought," — a power which is the "same in all men, and subsists without increase or diminution;" it is knowledge through conceptions, which are "not something coming to us from without, but produced by us from within." It is

[1] See Erdmann, § 232, 3.

concerned with necessary and eternal truths. "General notions" are abstractions from individual things, which alone are real. Everything has a cause, and at the head of all causes is a First Cause, God. In his pure essence, God is mere *causa sui*, not the cause of anything else. Every cause is more perfect than its effect; and the activity of God in going out of himself becomes less than perfect, — *i. e.*, becomes finite. Hence the world is finite, and must have had a beginning. The like holds of matter. The eternal as such is unchangeable, and from it no world of atoms could have been formed: the created world must have been formed from nothingness. Further, infinite power needs no such thing as matter for the bringing forth of finite things. Though philosophy discovers necessary and eternal truths, it cannot attain to the knowledge of the *will of God;* hence the necessity of a revelation for man. But of the truths commonly supposed to be merely revealed truths, some — *e. g.* those of the resurrection and the Trinity — are philosophically necessary.[1]

§ 20.

(2) *Sebastian Franck* (1500–1545). — Franck studied at Heidelberg, and afterwards became a historical writer of eminence. He had a profound acquaintance with the works of the German Mystics of the fourteenth century. Works of Franck are "Paradoxa" (1542), "De Arbore Scientiæ Boni et Mali" (1561). According to Franck, God is the only good. He created things, not at any particular time and once for all, but eternally creates and sustains. Apart from him, things are nothing: he is in everything, and constitutes the being of everything. Man is free in will, though limited in act. He is truly himself when he wills God: otherwise he is nothing. All men are one man. In every man both Adam and Christ exist, and redemption is not something that began to be just fifteen hundred years ago. He who is dead to his individual self and serves his spiritual

[1] See Erdmann, § 239, 14.

self or God, is a Christian — a member of the Holy Church — even though he never believed on Christ. — Franck was by the Lutherans persecuted for his philosophical opinions.[1]

§ 21.

Valentin Weigel (1533–1588). — Weigel, after many years of study at the universities of Leipsic and Wittenberg, spent his life as pastor of a church at Zschopau. By discreetness he escaped Franck's fate. He was a follower of Franck and the German Mystics. Works of Weigel are, — "Studium Universale, Γνῶθι σεαυτόν" (*Know thyself*), "Kurzer Bericht vom Wege und Weise, alle Dingen zu erkennen" (Brief Description of the Way and Method of Learning all Things), "Christliches Gesprach vom wahren Christenthum." True wisdom has its foundation in self-knowledge, — knowledge of our origin and destiny. Man is the microcosm: in him are united soul, spirit, and body, originating respectively in the divine, the celestial (æthereal), and the earthly worlds. By his soul (only) he is an image of God, and is immortal. He apprehends God directly: he cognizes the world, the macrocosm, through the elements of it united in himself. The object of knowledge is the occasion but not the cause of our knowledge: we know and understand only what we ourselves are. God is one and self-sufficient: man is dependent, and contains in himself alterity, has self-existence not of necessity, but by grace or favor. True Christianity, true resurrection and consciousness of God, are contained in "death to self."[2]

§ 22.

Jacob Boehme[3] (1575–1624), the "Görlitz Shoemaker," a native of Upper Lusatia, attended a village school, and was then apprenticed to a shoemaker. For many years he was an industrious maker of shoes and gloves in the town

[1] See Erdmann, § 233.
[2] Erdmann § 234, 4–6.
[3] Zeller, Hegel, etc.

of Görlitz. He was a constant reader of the Bible, the works of the Mystics, and astrological works. He experienced in youth supernatural visions and ecstatic conditions of mind, and in later years passed through inner mystical struggles. His peculiar views brought upon him charges of heresy, and made him an object of inveterate hatred to the clergy in his neighborhood.

Works. — Of Boehme's works (1612–1624), — about twenty in all, — the following-named are among the most important: "Aurora," "Vom dreifachen Leben des Menschen" (Threefold Life of Man), "Signatura Rerum," "Von der Gnadenwahl" (Election by Grace), "Mysterium Magnum." Boehme's works, both by their content (which is strongly mystical) and their form (which is very highly figurative), have been universally found difficult to comprehend, and even more difficult to expound.

Philosophy. — Boehme is a naturalistic theosophist. In its physics, his doctrine is Paracelsian (see below, p. 37); in its metaphysics, Neo-Platonic. He divides speculation into three branches: philosophy, treating of God and the origin of the heavens and the elements; astrology, treating of the origin of all mundane things, from the stars and the elements; and theology, which treats of the "Kingdom of Christ." Boehme attempts to refer all things to their source in such a manner that the greatest contrarieties even shall be comprehended in a single principle. All things have their source in God, and, conversely, all things are, without giving up their being, contained in God; the distinction between God and Nature (including man) is one that is in some manner eternally in God himself, for only so is God all in all. The distinction exists that God may manifest himself, and so be a true, perfect God. Apart from this distinction, God is pure groundless unity, eternal stillness, eternal nothing. If God were only this unity, this stillness, this nothingness, any distinction would be a separation from God without a return to him, and he would not be the All. There is both a "Yes" and a "No" in

all things, by which they subsist. The primary physical elements are "light" and "wrath," which are antagonistic forms of the same thing, — "heat." Light is lovely, and the universal cause of life; wrath burns, consumes, destroys. The constant war of light and wrath is at once the source and offspring of "quality," — spirit. In God are seven primal qualities or spirits. Of these, six were begotten by and are embraced in the seventh, which is the divine nature, — "mysterium magnum." In itself, the *mysterium magnum* is a world of pure light, harmony, and joy; unfolded, it becomes the world of both good and evil. Hence, evil as well as good is from God, and is of his essence, appertains to the property of generation necessarily contained in God. The evil in every creature is that inherent individual self-will which opposes itself to the universal will. The fall of man was a division, which took place in the slumber of selfishness, of his originally sexless nature into the two sexes. The redemption of man is through the divine light manifest in Christ. — Boehme is commonly known as the *philosophus Teutonicus* (the *German* philosopher *par excellence*). He has had a very marked influence in later German thought, particularly in the systems of Schelling, Baader, and Hegel.

§ 23.

III. THE (RELATIVELY) INDEPENDENT CULTIVATION OF PHILOSOPHY AS SUCH. — Here occur (1) Natural Philosophers; (2) Ethical (chiefly Political) Philosophers.

§ 24.

(1) *Natural Philosophers.* — As the most important of the natural philosophers may be named: Nicolaus Cusanus, Theophrastus Bombastus Paracelsus, Hieronymus Cardanus, Bernardinus Telesius, Franciscus Patritius, Thomas Campanella, Ucilio Vanini, Giordano Bruno.

§ 25.

Nicolaus Cusanus (1401–1464). — Nicolas of Cusa took a doctor's degree in law in the University of Padua, but instead of practising law, entered the Church. In 1448 he was appointed to a cardinalship, and two years later was made bishop (of Brixen), having performed important services as church-official. In the midst of ecclesiastical duties he carried on mathematical and astronomical studies, in which he was at least a century beyond his age, having even anticipated Copernicus in important regards.

Works. — The chief work of Nicolas is entitled "De docta Ignorantia" (1440). Other works are "De Conjecturis" (supplementary to the foregoing), "De Visione Dei," "De Ludo Globi," "De Beryllo."

Philosophy. — All human knowledge is, as such, mere "conjecture;" human learning is "learned ignorance;" and our highest knowledge is the knowing that we do not know. True knowledge — knowledge of God — we have only by an intellectual intuition, a *vision* of God. God is the content or substance of all things, the unity of all oppositions: in him absolute motion and absolute rest, the infinitely great and the infinitely little, reality and possibility, matter and form, subject and object, are one and the same. The universe is (not God himself, but) the explication, unfolding, externalization of God's nature. All things follow mathematically from the divine unity, and form together a cosmos governed by mathematical relations. The physical universe is infinite in time and space; the earth rotates on its axis. The destiny of man is to be united with God, by faith in the God-man, Christ. — The ideas of Nicolas, through their direct influence upon Bruno, and their indirect influence on Spinoza, Leibnitz, and others, have been a very considerable factor in modern philosophy. Particularly original and modern in Nicolas is the idea of the infinitude of the universe, on account of which chiefly

is he to be classed with modern rather than with (early) mediæval philosophers.

§ 26.

Theophrastus Bombastus Paracelsus[1] (1493–1541). — Paracelsus, who was educated by his father and at several universities, spent a considerable portion of his life roving about the countries of Europe, seeking a knowledge of the world in general and medicine in particular. He had already studied medicine under his father and other instructors. In 1526 he was appointed professor of medicine in the University of Basel. He is reported to have opened his first course of lectures by burning the works of Galen and Avicenna, to symbolize his conception of the duty of investigators as regards independence of the past and the direct study of nature and life. He attempted to introduce a reform in the art of medicine upon the basis of a philosophical knowledge of human nature as a whole.

Works. — Works of Paracelsus are "Paramirum seu de Medica Industria," "Paragranum" (or the "Four Pillars of Medicine"), "Labyrinthus Medicorum et de Tartaro," "Pestilitate ex Influxu Siderum," etc.

Philosophy. — Philosophy has for its only subject nature, and is itself merely "invisible nature." Its instrument is the natural light of the mind, reason. Nature is to be comprehended only through the knowledge of its end, man, who is (therefore) the "book from which we may read the secrets of nature," the microcosm. Man is composed of an earthly body, which is tangible, a heavenly or astral body, which is æther-like in nature, and a "spirit," and a soul, which is purely of divine origin and destiny. The first of the three parts of man is nourished from the material elements (fire, air, earth, water), the second from the influences of the stars, the third from Christ through faith. The material elements are formed from salt, sulphur, and quicksilver, which in turn come from a primal matter

[1] Zeller, Geschichte der deutschen Philosophie.

(termed by Paracelsus *mysterium magnum*), which is not so much corporeal as incorporeal in nature. The essence of material things is force rather than matter. There is a universal life, each thing's peculiar share of which is its quintessence (*i. e.*, the *fifth* essence, fire, air, water, and earth being the other four), its virtue, or nature. Medicine is the art by which that virtue, in man, is, when obstructed in its operation, made effective. The virtue or quintessence of man is to be understood, of course, only through a knowledge of his various parts individually in their relations, — the earthly, the astral, and the divine parts of man: hence the "four pillars" of medicine, — *philosophy* (having to do with the earthly portion), *astronomy* (having to do with the astral portion), and *theology* (which is concerned with the soul), together with *alchemy*, or the applied theory of nature. Possessing a right knowledge of these, the physician can easily determine, in case of disease, whether the disease be earthly, sidereal, or divine, and accordingly stimulate to appropriate activity the inner human virtue. It is the business of medical chemistry (alchemy) to produce the quintessences or virtues of things at will. As a form of knowledge, medicine combines speculation and experience, either of which is false without the other. Paracelsus, it may be said in passing, seems to have a title to be regarded as a great reformer in the science of medicine. If so, he affords a striking illustration of a fact too often overlooked, — that advances in science frequently have their initiative in philosophical theory.

§ 27.

Hieronymus Cardanus, or Girolamo Cardano[1] (1501–1576), eminent as a physician and mathematician as well as a philosopher, studied philosophy and medicine at the universities of Pavia and Padua. He was at one time professor of medicine in Bologna. In his youth he was

[1] Noack, Erdmann.

a victim of strange visions and hallucinations, and his mind even in later life was filled with distempered imaginations. His character and life were eccentric: he was full of the restlessness of his age, and was a sensualist in his habits even in his old age. He is to be credited, however, with the possession of a genuinely scientific spirit. He was one of the early discoverers in the science of algebra.

Works. — The principal works of Cardanus are entitled: "De Subtilitate" (1552), "De Varietate Rerum" (1556), "Arcana Æternitatis" (posthumous), the most important of all.

Philosophy. — In the system of Cardanus we have the conception of a coherent universe having its principle of unity and being in a world-soul, the phenomenal or material form of which is heat. All changes occur according to natural law and through natural causes, since to conceive them as occurring merely because God wills them is to assume God to be without reason and to be capable of occupying himself with trivial things. That all things *are* subject to law is sufficiently shown outwardly by the fact that the motions of the stars are governed by number. The will of man, who is a triple nature composed of body, soul, and an immortal mind, is, however, free from the law-governed influences of the heavenly bodies. Man is not merely an individual of a species, like the animal, but a whole in himself: he is, nevertheless, so far as he is an individual, not entirely self-sufficient,— hence society. Human laws have binding force only if accordant with philosophy or religion; tyrannical laws may rightfully be broken, and tyrants murdered. Ancient theories of the state were constructed too little with reference to the actual, varying conditions of social life. Philosophy has to do solely with theory: perfect religious freedom should be accorded to thinkers. By divine grace the mind rises in mystical ecstasy to the intuition of the divine, and becomes one with God. — Cardanus had a close follower in Telesius.

§ 28.

Bernardinus Telesius, or Telesio (1508–1588).—Telesius, first instructed by an uncle, afterwards studied philosophy and mathematics at Padua, and the natural sciences at Rome. He conceived a scientific antipathy to Aristotle, and formed a plan of reforming philosophy. Under the auspices of the prince of Naples he founded an academy for the cultivation of natural philosophy and the antagonizing of the revived Aristotelianism.

Works. — An early work, the first indeed of Telesius, is entitled "De Rerum Natura juxta Propria Principium" (1565–1586). Various treatises, on comets, atmospheric phenomena, the rainbow, etc., appear together in a work entitled "Varii de Naturalibus Rebus Libelli" (1590).

Philosophy. — Telesius — like Cardanus — professes to philosophize in accordance with the conception of universal natural law and natural causes in the universe. Two commanding phenomena are (1) the heavens sending forth heat and the earth emitting cold, (2) the sun's heat producing life upon the earth. Heat and cold, then, are two "principles." Body without properties is a third. This third property is passive, the others are active, "soul-like." Heat is the cause, but not a consequence, of motion. Light is a manifestation of heat. Heat causes the earth to perspire, so to say, and thus produces water. Air is condensed or cooled fire. Body, or composite existence, presupposes a soul by which its parts are made to cohere. The human soul is a very subtle substance, the principle of which is heat. The seat of the soul in man and animals is the blood, the nerves, and, especially, the brain. The soul has its origin at the birth of the body. All knowledge — even geometry — is grounded in sense-perception, or experience. Animals think. Volition in man is a consequence of thought: we will only what we determine to be good. The highest good is self-preservation; and the virtues are merely the operations of the impulse to self-preservation. To the immaterial

soul of man it belongs to know God and to be like him. — Telesius is perhaps the most distinctly scientific and the most original of these early modern natural philosophers. He was a favorite with Francis Bacon, of whom, indeed, he was a forerunner.

§ 29.

Franciscus Patritius, or Francesco Patrizzi (1529–1597), received a good early training in classical literature and philosophy, and, after some time spent in travelling, completed his studies at Venice and Padua. He became a teacher of philosophy at Ferrara. He was a violent opponent of the Aristotelianism of his day, and an equally energetic advocate of Platonic, or, rather, Neo-Platonic doctrines.

Works. — Works of Patritius are "Nova de Universis Philosophia Libris quinquaginta Comprehensa" (1591–1593), "Zoroastris Oracula," etc., "Hermetis Trismegisti Libelli et Fragmenta," etc.

Philosophy. — The doctrine of Patritius is Neo-Platonism, with a modern naturalistic cast. The universe is an emanation from a primal immaterial light, the special manifestations of which in the heavens and on the earth are heavenly and earthly light. The highest principle is an indivisible One. From it emanates a discrete unity. The two are united by love. There exists a world-soul, possessing reason in a limited degree. Space is the condition of material existence, and the first element of all things. Other elements are the heat and light filling and belonging to space. A fourth element is fluidity. The earth moves. It is subject to the influences of the stars, from which come germs — having, however, their primary source in the light above the stars — to the earth. Patritius praised Telesius.

§ 30.

Thomas, or Tommaso, Campanella[1] (1568–1639). — Campanella (born in southern Calabria) early read the

[1] Noack and Erdmann.

works of Albertus Magnus and Thomas Aquinas, studied theology with the Dominicans, acquired a knowledge of the systems of Democritus, Plato, Aristotle, the Stoics, and Telesius. Going, afterwards, to Naples, he joined the Telesian Academy, and became an avowed follower of Telesius. Owing to the radical character of his opinions, frankly uttered, he came into disharmony with his fellows, and, in consequence, lived for some years a roving life. For some reason he became an object of political suspicion, and was, on the pretext of his being a conspirator against the Spanish government in Naples, thrown into prison. In various prisons — more than fifty, it is reported — he spent twenty-seven years of his life.

Works. — Works of Campanella are: "Prodromus Philosophiæ," etc. (1611), "De Sensu Rerum," etc. (1620), "Realis Philosophiæ Epilogisticæ Partes IV.," etc. (1623), "Atheismus Triumphatus" (1631), "Philosophiæ rationalis Partes V.," etc. (1638), "Universalis Philosophiæ seu Metaphysicarum Rerum Partes III.," etc. (1638). Of these, the last named is regarded as the most important. Campanella is popularly known by a politico-philosophical romance called "City of the Sun" (Civitas Solis), which forms a part of the "Realis Philosophiæ," etc.

Philosophy. — Campanella treats philosophy as a "maid-servant" of theology. He divides philosophy proper into two "real sciences," *philosophia naturalis* and *philosophia moralis*. Merely formal and instrumental are the sciences of logic and mathematics. Intermediate between the real and the formal sciences is metaphysics, treating of being and essence. The starting-point of philosophy is the certainty of the existence of self, which is self-evident and beyond the reach of all scepticism. The self is limited. In common with all other limited beings, the self presupposes an infinite being. The essence of the self is seen on reflection to consist in power, knowledge, and will; and since the cause must contain at least as much as its effect, power, knowledge, and will belong to being as such, and not

merely partially as to us, but *eminenter*. The attributes of not-being are mere negations. Besides its positive attributes everything has negative attributes which are the negations of all the attributes which it has not in a positive manner: *i. e.*, being and not-being are united in all beings. God created the finite world from love. In it he is only partially contained. Nearest God is a world of archetypes: then follow in order, the spiritual world or world of eternal ideas, the world of mathematical entities, the abstract temporal, or corporeal, world, and the world of definite time and space. The lower worlds are varied images of the highest of all. All existence is an act of knowledge and will, and nothing is without soul: even of space is this true, for it abhors a vacuum and strives to fill it: it is true also of passive matter, which by its fixedness (inertia) and its accelerating its speed in falling, gives evidence of its not being merely dead. Hate and love mingle in all things. The physical principles of existence are heat and light (in the circumference of the universe) and cold and dark (at the centre). Animal instinct is knowledge blended with its opposite. The instinct of self-preservation in animals is love of their own being. Every creature loves only its own being. Self-love ceases to be merely selfish when it becomes love of God. The highest end of action is self-preservation: virtue is but the method of attainment of this end. The highest political problem is the welfare of the State: the act of legislation and governing demand the highest wisdom. This "highest wisdom" includes, among other similar acts, those of currying favor with lower classes of society, and so dispersing the higher that their influence may not, by becoming centralized, be an obstacle to the realization of the idea of a high and arbitrary universal ecclesiastical monarchy.[1]

Result. — There occurs in the doctrine of Campanella one very remarkable anticipation of a distinctive feature of modern philosophy in, so to say, its majority, *viz.*, the resting of all certainty and knowledge upon the certainty

[1] See Erdmann, § 246.

and knowledge of self, as is done by Descartes, with his famous *Cogito, ergo sum*, and by many coming after him. We may regard Campanella as a forerunner of Descartes, as Telesius is of Bacon.

§ 31.

Pompeio Ucilio Vanini (1585–1619). — Vanini studied theology and philosophy in Rome, jurisprudence at Padua, and the natural sciences in various European universities. A wanderer, like Bruno, Paracelsus, and other philosophers we have noticed, he travelled, teaching as he went, through Switzerland, France, Belgium, and England, persecuted much for his heterodox convictions. He is said to have been a pupil and worshipper of Pomponatius: he styled Aristotle the "God of philosophers and pontiff of wisdom." He was put to death in a most horrible manner by the Inquisition. A work of his (the second mentioned below) was condemned to the flames.

Works. — Two of his works are entitled, respectively, "Amphitheatrum Æternæ Providentiæ" (1615) and "De Admirandis Naturæ Reginæ Deæque Mortalium Arcanis Libri IV." (1616), often cited as "Dialogues on Nature." The real views of Vanini are contained in the latter of these two works.

Philosophy.[1] — Nature is the energy of God and God himself. It is an eternal begetting, and has its own inherent laws of bringing-forth and preservation. Matter is indestructible, unchangeable in quantity: it exists not without form, but always is changing form. The matter of all things — of heaven and earth — is the same. The heavens are not moved by intelligences, but by the omnipresent energy of God. The sea ebbs and flows of its own essence; the air by its motion heats *itself*, and so becomes flame; plants hate and love one another. The soul rules in all parts of the body as a material spirit, or nerve-mind: it is the form of the living element in matter, and the creative

[1] Noack.

form in germs. As the centre of all life man combines in himself the earthly and the heavenly: in the human compound as in a microcosm the whole of nature is contained, wherefore man has the powers of plants, animals, and minerals. Our vital spirits depend upon the food we eat; our vices on the bodily humors and germs. — In Vanini (as in Bruno) nature-philosophy, and indeed philosophy in general, dissociates itself from theology, or at least "Christian theology," and exists in and for itself. As compared with the philosophy of Bruno, the principle of which is, as we are about to see, the unity of opposites, the philosophy of Vanini is rather abstract and undeveloped, a product of the negative understanding rather than of synthetic imagination. On this account we have reserved the notice of Bruno till the last.

§ 32.

Giordano Bruno[1] (1548–1600). — Bruno — born at Nola, a city near Naples, — early received a training in logic, dialectic, and the ancient classics, and later was an enthusiastic student of the ancient philosophers — especially Plato, Aristotle, the Stoics and Epicureans — and of the scientific investigators and speculators of his own age, Nicolaus Cusanus, Telesius, Cardanus, Copernicus. Decidedly, however, of an original and creative turn, he could be no mere borrower nor a mere eclectic. Independence of thought caused him to desert the cloister near Naples which he had entered, and to become a wanderer on the face of the earth. He went to Rome, Genoa, Padua, Geneva, Lyons, Toulouse, Paris, teaching and propagating on the way the ideas with which his enthusiastic brain seethed. He became instructor in philosophy and lectured with *éclat* at the universities of Toulouse and of Paris (1579–1583). He spent two years in England, living in intimate association with Sir Philip Sidney and other choice spirits there, debating the Coper-

[1] See Giordano Bruno's Weltanschauung und Verhängniss, aus den Quellen dargestellt von Dr. Hermann Brunhofer, Leipzig, 1882; Franck; Noack; etc.

nican doctrine with Oxford professors, and producing some of his most important works. He also spent two years (1586–1588) in Germany, lecturing privately, composing treatises, debating with scholars burning topics of the age, such as the Scholastico-Aristotelianism (which he vehemently opposed), the Copernican astronomy, and religious and intellectual intolerance. He sought particularly the universities as centres of intellectual life, and, though an intellectual radical, received a professorship at the University of Helmstädt. His radicalism caused his exclusion, however, and he again became, after a time, a wanderer. In 1591 he was invited by a certain Venetian nobleman to go to Venice to instruct him in the Lullian art of invention and discovery, which had been a favorite subject of cogitation with Bruno since almost his earliest instruction in logic. The nobleman becoming suspicious after a time that Bruno was not revealing to him the true Lullian doctrine, betrayed him to the representatives of the Inquisition, who imprisoned him in May, 1592. Bruno had been misunderstood and misrepresented. He was at last, after seven years or more of imprisonment in Rome, burned at the stake. "The judgment which ye have pronounced upon me," he said at the stake to his judges, "inspires fear in you rather than in me."

Works. — Bruno was by natural aptitude, and also by conscious intent, a poet-philosopher. Always a fervid spirit, he early wrote poetry and early believed philosophy to be a "foster-parent of the Muses," and himself to be truly inspired by the Platonic love of philosophic beauty and truth. His philosophy is to be found therefore not merely in didactic expositions, but in poems also. Among the most important of his works: "Della Causa" (1584), "Principio, ed Uno" (1584), — metaphysical in content; "Del' Infinito" (1584), "Universo, e Mondi" (1584), — physical; "Spaccio della Bestia Trionfonte" (Expulsion of the Triumphing Beast [*sc.*] in human nature), — moral; "Degli Eroici Furor," a poem, — moral; "De Triplici

Minimo et Mensura" (1591), "De Monade Numero et Figura" (1591), "De Immenso et Innumerabilibus, hoc est, de Absolute Magno Innumerabili et de Mundis" (1591), "De Umbris Idearum et Arte Memoriæ" (1582), (one of numerous treatises on method).

Philosophy: Method.[1] — Paradoxical as it may appear, it was a matter of prime necessity to this poet-philosopher to lay down a method of philosophizing. That creative instinct of power, determination, unity, which was the fountain-head of poetry in him, was also of necessity the source of an effort to get possession of an absolute, self-determining method, a method uniting thought and reality. In one aspect this effort was, it may be, merely psychological; so powerful was Bruno's intuition of unity and determination that the external world presented by contrast a spectacle of confusion. In another aspect this effort is a *direct* consequence of the immediate perception of the unity of thought and being, and possesses thus absolute reality, and we may properly begin with the exposition of it. The foundation of real knowledge is, according to Bruno, *evidence:* that which is not supported by evidence is unworthy a philosopher's acceptance; that which *is*, cannot be rejected by him. Evidence presupposes criticism and doubt. In itself, knowledge is an order in ideas according to which there is a rank of higher and lower, the latter flowing from the former by a necessity corresponding to a necessity in being, with which thought is one. There is in knowledge as in the universe a determining nature and a determined. Man's ideas are the shadows or copies of the archetypal Ideas or patterns "existing metaphysically in the ultimate unity or intelligence, physically in the world of things, and logically in signs, symbols or notions." It is the office of true method to connect our ideas in the relations of necessary determination corresponding to those in the archetypal ideas. The philosophy of the monad, or primary being, must, that is to say, precede natural science. Method must

[1] See Brunhofer.

be deductive, mathematical. And yet, on the other hand, since thought and being are one, there is everywhere a harmony of opposites, thought is nothing if it cannot be "put into the mould of phantasy or sensuous imagination, imagination is nothing if not a vehicle of thought," and all theoretical investigation of *nature* must have as its corrective and complement, experience. In the study of nature we have to regard, as far as possible, the higher forms of existence as consequences of the lower, and gaps in our knowledge of the higher must be filled from our knowledge of the lower. True method is an art of discovery as well as of memory. Such an art supersedes the Scholastico-Aristotelian logic.

The primal Unity: God. — All things have their source and their truth and explanation in a single simple substance. Without opposition or difference in itself, it is the ground of all differentiated being. In it are contained simultaneously and in one act the, to finite intelligence, infinite variety and succession of beings. Matter and form, power and end, in it fall together into perfect unity: matter is, from the beginning, form, power, and end. Form, power, and end are in themselves matter; and all are but manifestations of the one single substance, nature of nature,— God. The manifestations of this substance are not personalities nor even *attributes* of it, since it is not in the least affected with plurality, but are merely aspects which this substance presents to finite intelligence. In itself it is absolutely simple; and it is consequently incognoscible, all its manifestations are but shadows and reflections, — negative manifestations. It is directly perceived by the eye of pure reason alone, to which all contrariety appears as resolved into pure identity.

Nature. — Nature is not God, but his manifestation. In nature there are two highest principles, — matter and form. In the last analysis these two are one; form proceeds from, and returns into, matter, which, consequently, cannot be conceived as mere barren possibility, as Aristotle attempted

to conceive it. Form, indeed, is merely a (self-) determination of it. Matter is thus force, soul, spirit. Nature, therefore, must be conceived as working in the manner of an artist, and though distinct from God, is not, in reality, separate from him. Nature as God's image contains in itself at every moment all that it is and can be. The whole of nature is present in every part, as the life of the body is in the juices and the blood of the whole body. But it is present in a different manner in different parts: hence multiplicity and change, which obviously cannot belong to being as such, but only to the mode of being. Nature, as in itself one and as subject of multiform and changing modes, is a harmony of opposites; its working is at one and the same time both union and opposition; the resolution or dissolution of one individuality is also the formation of a new individuality. The elementary constituents of nature are point-like material spheres (termed monads), having, in different degrees, a psychical nature. Of these there are as many classes as there are classes of things perceivable by the senses. The monads, as the elements of all that is, are, on the one hand, the "minima" (smallest), and, on the other (since all else has its source in them), the "maxima" (greatest) of things. God is the monad of monads. Space is merely a necessary thought-form, correlative to body, and is an infinite *continuum*. Time is not (as Aristotle held) the measure of motion, but motion, rather, of time, which would exist even were there no motion (motion is necessary, however, to the *perception* of time). Objective time would be that measured off by the motions of the heavenly bodies if such motions were perfectly regular in every regard.

The Concrete Universe. — The visible universe is not bounded by the region of the fixed stars (as Aristotle and even Copernicus held), but is infinite [as Nicolas of Cusa had said]. There is an infinity of worlds infinitely various in degree of perfection, so reflecting the infinite perfection of the Creator. They are living organisms, and contain an infinite variety of organic life, in the maintenance of which

the creative world-soul finds its infinite satisfaction. Reason never tires of drawing forth from matter all sorts of forms. The immanent end of the existence of every living thing is the perfection of the whole. The world is the most beautiful possible, the perfect harmony of all oppositions. It is the work of an in-dwelling reason,— gives evidence, by the wonderful structure and manifoldness of its parts, the tendency of objects to "preserve their being," flee their opposites, and struggle towards that which is useful to them, of the presence in it of a universal intelligence. There are three degrees of this intelligence. On the plane of the lowest degree neither the nature nor any property of objects is clearly distinguished, there is at most but an indefinite feeling of bodily properties. Such intelligence belongs to plants. A higher stage is that which distinctly perceives the constitution and character of objects: this is animal intelligence. The third and highest stage is that of rational knowledge. There are degrees of life in ascending scale, and corresponding changes from one to another resulting in a gradual development of higher forms of life out of lower. Change is universal and constant, but gradual and occurring in infinitely long periods. In a period of twenty thousand years one genus may develop into another. Real infinitude is predicable of the genus only: the genus alone has infinite capacity for development. Man's place in the scale of living things is midway between the divine and the earthly, — he is the harmony of these two opposites, the bond between them; his nature contains implicitly all others. The soul lives in the whole body, returning towards the heart (from which it extended itself, as a web) at death. The present life of the soul is but death, death the awakening of a new life. Sense, imagination, understanding, and spiritual intelligence are the forms of human knowledge. In spiritual intelligence everything is embraced in a single perception — "life, light, sense, and thought, are one essence, one power, one act, — the All-One." This is the only real intelligence. Viewing the world with the eye of this intelligence, man sees

it as the image and law of God, nay, God himself. In such intelligence and the longing and hope corresponding to it, man passes into God and "becomes all as he is all." In so doing he becomes the Good, which is precisely the One, King, the Divine. Evil is relatively non-existent, — is mere defect and opposition, finitude, not-being in being. To become evil is merely to fall away from God. Only as good does the soul find true joy in itself and its environment. Goodness is, first of all, truth, since truth is just that One which is in and above all things. In truth and goodness, thought and action are united and become love, which is their consummation. He who is filled with love is filled with God, who is precisely Love, which pours itself forth on all things, and towards which all things struggle.

Result. — In the doctrine of Bruno, the nature-philosophy of the First Period reaches its highest form; in it there is manifested a fuller conception of the presuppositions, method, and results of a philosophy of nature, whether speculative or empirical, than in any of these systems we have contemplated before it. By his conception of nature as the sum and unity of all possible determinations, Bruno holds the position of forerunner of Spinoza; by his conception of the monad that of forerunner of Leibnitz. The philosophy of Bruno stands almost entirely alone among the systems of this First Period as being wholly "non-Christian" in principle and result: it is simply Platonism, or Neo-Platonism, purified of mediæval accretions, and blended with the widest truths of nature as known to the science of the age of Bruno, or as divined by a mind gifted with high poetico-philosophical insight. The kernel of it is, doubtless, the conception of the unity of opposites, — a conception which has played (and is playing) a vast *rôle* in modern speculative thought. as we shall have abundant occasion to see.

33.

(2) *Ethical Philosophers* (*chiefly Political*). — The names which occur here are those of Nicolò Macchiavelli,

Thomas More, Johannes Oldendorp, Nicolaus Hemming, Jean Bodin, Albericus Gentilis, Benedict Winckler, Hugo Grotius, Richard Hooker.

§ 34.

Nicolò Macchiavelli (1469–1527), the Italian statesman, in his two works, "Il Principe" (The Prince), (1513, pub. 1532), and "Discorsi sul Primo Libro delle Deche di Tito Livio" (Discourses on the First Book of the Decades of Titus Livius), (1520?), gives not so much a theory of the State as such, as a theory of a State under conditions like those existing in Italy in his own day. He separates political methods entirely from moral and religious, and upholds the maxim that the "end justifies the means."

§ 35.

Thomas More (1478–1535). — More, the well-known Lord Chancellor of King Henry VIII. of England, in a philosophical romance, "Utopia" (Latin, 1516; English translation by Ralph Robinson, 1551), portrays an "ideal commonwealth," agricultural in basis, in which community of property is the universal rule, the form of government is republican, transgression of the laws (which are but few) is punished by degradation to a condition of slavery, the sciences are assiduously cultivated, education is compulsory, religious toleration prevails except towards those denying the doctrine of the immortality of the soul and of a divine providence, and the priesthood (numerically small) enjoys special respect and is irresponsible.

§ 36.

Johannes Oldendorp (d. 1561). — Oldendorp, professor at Marburg, whose "Juris Naturalis Gentium et Civilis εἰσαγωγή" (1539) has been called the "first attempt to establish a system of natural law,"[1] based natural right on universal reason, but held that Revelation (*i. e.*, the Deca-

[1] See Erdmann, § 252, 4.

logue) was the only "reliable authority for the same." Civil right, or law, is a species of natural right, but is based on probabilities, and depends upon the constitution of the State.

§ 37.

Nicolaus Hemming (1518–1600).—Hemming, at one time professor at Copenhagen, having previously been five years a personal pupil of Melancthon, aims to derive natural law purely from the reason implanted in man by God. In his "Lege Naturæ apodictica Methodus Concinnata" (1577), he maintains — assuming that the end of the practical life is threefold; *viz.*, economical, political, and spiritual — that the political end is ultimately identical with the spiritual, which is the knowledge, fear, and love of God. Immediately, the political end is repose and peace; it is mediated by the four (Platonic) virtues, — prudence, moderation, courage, and justice. Governments differ according to circumstances, but only those sorts of law are justifiable which can be proved to flow from the axioms of nature.[1]

§ 38.

Jean Bodin[2] (1530–1597).—Bodin, who took a degree in law at Toulouse, and afterwards lectured there on jurisprudence, and who was one of the earliest of modern political economists as well as modern writers on jurisprudence, undertakes, in a work entitled "Six Libres de Républicque" (1597), to erect a theory of society on a historico-empirical basis as regards method. The State, according to Bodin, is a community of families regulated by authority and reason; it arises by "force and violence from a patriarchal state of society." Citizenship in a true State is the "acknowledgment of the sovereign by his free subject, and the protection of the sovereign towards the subject." The State reposes on a real or imaginary contract. The sov-

[1] See Noack.

[2] See Hallam, Lit. of Europe, Part II., pp. 150–164.

ereign power of the State is the legislature: it is a power that is perpetual, absolute, and subject to no law. The forms of government are three, and three only: democracy (in which the sovereignty rests with the majority of the citizens), monarchy (which is the "rule of one man according to the law of nature, who maintains the liberties and properties of others as much as his own"), aristocracy (a government in which a "smaller body of the citizens governs the greater"). Resistance to the commands of the sovereign is a thing to be avoided except in cases where those commands indubitably conflict with the "law of God." Slavery is undesirable. Revolution best takes place by a voluntary cession of power. The supreme law of the State is public safety. Climate, the surface of the land, soil, and physical conditions generally (a subject that has hitherto been neglected) must be considered: the laws of "Nature will not bend to the fancy of man." Religious tolerance should be the rule, since men give assent "voluntarily, not by force." The best form of government is an agnate monarchy. — Bodin may, profitably, be compared with Aristotle, on the one hand, and Montesquieu, on the other.

§ 39.

Albericus Gentilis, or *Alberico Gentili* (1552–1608), an Italian who was driven from his native country by religious persecution, and who, settling in England, became Regius Professor of Civil Law at Oxford, rejects both the historico-empirical and the theological views of the basis of natural law, which he finds solely in the *science* of human nature. Man is by nature a social being. Right exists only in society, and only between individuals, so that the ordinary distinction of right into *jus naturæ* and *jus gentium* is untenable. War is justifiable only for the sake of peace. Atheists have no rights. To all persons, except atheists, toleration should be shown. Gentilis' chief work is entitled "De Jure Belli Libri Tres" (1598). To this work of Gen-

tilis the corresponding famous work of Grotius is said to be largely indebted.

§ 40.

Benedict Winckler[1] (d. 1648), professor of jurisprudence at Leipsic, whose "Principiorum Libri Quinque" (1615) has been called the "most important treatise on natural right prior to Grotius," derives all right ultimately from a divine source, which is most purely revealed in the Scriptures, — particularly the Decalogue. He distinguishes a *jus naturæ prius* by which man was governed prior to the "fall," and a *jus naturæ posterius, sive jus gentium*, the natural law of man since the "fall." The *jus naturæ prius* is indispensable and binding. Civil law is merely a means of upholding obedience to *jus naturale* and *jus gentium*. It changes with circumstances. Society is, ultimately, founded on the social nature of man.

§ 41.

Hugo Grotius, or *Huig van Groot* (1583–1645).— Grotius, the commonly reputed founder of the science of international law, was a prodigy in learning even when a youth; very early took a degree in law at the University of Leyden; at the age of twenty received the appointment (unsolicited by him) of historiographer of the United Provinces of Holland; was afterwards advocate-general of the fisc for the provinces of Holland and Zealand; fiscal-general at Rotterdam; ambassador to London, etc. Imprisoned for life (as was intended) because of a part in theologico-political disturbances (Grotius was a "Remonstrant"), he managed, by the shrewdness of his wife, who was allowed to share in his imprisonment, to escape to Paris. At Paris he acted as ambassador for the Swedish Crown. He accepted an invitation from the Crown of Sweden to go to Stockholm to reside. He is almost uni-

[1] Zeller, Erdmann.

versally known as the author of a treatise "De Jure Belli et Pacis" (1625).

Philosophy.[1] — Grotius, like others before him, professes to aim at the establishment of a science of law. Law, he says, is founded in human reason, or the social nature of man, and would be binding even if God did not exist. Upon natural law, thus founded, is based positive law, which has its source in the pleasure, or will, as distinguished from the *nature*, of man or of nations. Law is of four sorts: it is *jus naturæ*, *jus civile*, *jus gentium naturale*, *jus gentium voluntarium*. The condition of the mere individual is a condition of mere nature. In the state of nature every one has an equal right to everything, in so far as everything belongs to all but to none in particular. Society originates as a means of obviating the insecurities of such a condition, as well as means of supplying social need as such. It is created by a voluntary combination, and rests upon a compact. The rights of the subject depend in general upon the nature of this compact; but it cannot as a rule be right for the subject to make war against the State. Humanly speaking, the only object of punishment is the prevention of crime or the improvement of the criminal: "Retribution belongs to the Almighty alone." Just cause of war is found only in injury to rights, and in the denial of the being and providence of God: even a right of taking up arms to recover stolen liberty is inadmissible. War is to be avoided by all possible means.

§ 42.

Richard Hooker (1554–1600). — Hooker falls last in our list, because he seems to us to have given the best philosophical deduction of the conception of law. Born near Exeter, England, he was educated at the Exeter grammar-school, and at Corpus Christi College, Oxford. For some years he was Hebrew lecturer at Oxford; and

[1] Hallam, Literature of Europe, part iii. pp. 176–220.

was afterwards minister, in the Established Church, of various parishes in England. While preacher at the Temple in London, he became, unwillingly, involved in a controversy with a Calvinist divine of the Temple on the subject of Church observances and laws, — whence arose his philosophical treatise.

Work. — The treatise in question is "Of the Laws of Ecclesiastical Polity," — particularly the First Book (1594). Hooker's ideas seem to have been, largely, borrowed from Aristotle, the early Church Fathers, and Thomas Aquinas.

Philosophy.[1] — "All things that are," says Hooker, "have some operation not violent or casual. Neither doth anything ever begin to exercise the same without some foreconceived end for which it worketh. And the end which it worketh for is not obtained unless the work be also fit to obtain it by." Now that which "determines the kind, the degree, and the measure of the operation or activity of each thing" is *law*. There is one — and only one — being which is a law unto itself; all others act according to a law of which, not themselves, but that being, God, is author. The law of God's activity is reason or, rather, rational will, and not mere blind reason nor mere arbitrary will. It is immutable, eternal: but does not thereby abate or hinder his freedom, since the imposition of this law upon himself is his own free act. The law imposed by God upon himself is the "first eternal law" of his working; that which he imposes upon his creatures is the "second eternal law." Hooker distinguishes law *in general* into law of nature, law of reason, law of spirit, and into human and divine (revealed) law; and *human* law into law of the individual and law of society. The law of spirit — of angels and intellectual beings as such generally — is that of love, adoration, and imitation of divine perfection. In their associate capacity, spirits form an "army, one in order and degree above another:" in relation to human beings, they are fellow-servants. All of their functions are

[1] Hooker's Ecclesiastical Polity.

performed "with joy." A fundamental law of all things — and especially of human nature — is consciously or unconsciously to "seek the highest, to covet the participation of God himself." This seeking has various degrees, but the end is always the same, *viz.*, God or goodness. The first degree of seeking is the desiring the continuance of existence. A second degree is the striving to resemble God in constancy and excellency of operation. This seeking is in man conscious, and as such constitutes his essence. Man attains to full consciousness in his seeking, by degrees. Until he distinguishes "differences of time, affirmation, negation, and contradiction in speech," he is on a level with the lower animals. When he does so he has some "use of natural reason." By reason he comprehends the laws of his true being, the laws by which his actions are by him to be guided. Human action has for its end either mere action for its own sake, or action for the sake of procuring an ulterior object. Like that of God, it is, ideally speaking, witting and free: desire only solicits, will controls, it. Actions determined by appetite are voluntary in the sense that they are subject to the control of the will, though the will may not be exercised, but yields assent, as it were by silence. The good, or whatever is an object of real desire (since desire is everywhere the Good (God) seeking itself), does not move to action merely by being, but by being apparent or the object of a consciousness. Evil as such is never really desired or willed: men choose evil, when they choose it, from habits overpowering reason in them. The good and the evil are known by one and the same criterion. We judge of the good and evil of things by means of their causes and effects and signs. The main principles of judgment are self-evident, "for to make nothing self-evident of itself unto man's understanding were to take away all possibility of knowing anything." Examples of self-evident principles are: the greater good is to be chosen before the less; it profits a man nothing to gain the whole world and lose his own soul; obey

the mind rather than the body (the highest law of action), etc. The marks of the laws of reason are, — likeness to the laws of nature, accessibility to human understanding (without revelation), universality of recognition. Society has its origin in the inability of the individual to "furnish himself with the store of things needful for such a life as our nature doth desire, a life fit for the dignity of man." It has a double bond, — the natural inclination of men to social communion, and an "agreement, expressed or tacit, as to the manner of union or living together." The latter — the agreement — is the law of the commonweal, which has for its object the public good. The chief ends of living are wisdom, virtue, and religion. Laws of the commonweal are natural laws, positive laws, and laws of nations. Divine laws are such as are "supernatural both in respect of the manner of deducing them, and also in regard of the things delivered" (*viz.*, the objects of faith, hope, and charity). Hooker's discussion on the subject of law closes with the following assertions, which may be taken as a brief summing up of his general meaning: "Of law there can be no less acknowledged, than that her seat is the bosom of God, her voice the harmony of the world: all things in heaven and earth do her homage, the very least as feeling her care, and the greatest as not exempted from her power: both angels and men, and creatures of what condition soever, though each in a different sort and manner, yet all with uniform consent admiring her as the mother of their peace and joy."

Result. — There are in Hooker's conception of law two features of primary importance, to which special attention may be directed,[1] *viz.*, the notion that law, instead of being merely a mode of mechanical operation, is ultimately an expression of rational will or living reason, and the notion of the universality of law. By the first, the philosophy of Hooker is absolutely distinguished from all mechanistic

[1] See British Thought and Thinkers (by the late Prof. G. S. Morris), pp. 71–79.

philosophies, and especially mechanistic philosophies of the State, — like that of Hobbes, for example; and even more, were that possible, is it by the second taken in connection with the first, — universal living reason is wholly another thing than blind necessity. — The influence of Hooker appears in later political philosophies, particularly (strange as it may seem as regards the first and the last) those of Hobbes, Cumberland, and Locke. He has received too little attention from historians of philosophy, — has, in fact, generally been entirely ignored or overlooked.

DIVISION II. SECOND PERIOD OF MODERN PHILOSOPHY.

§ 43.

The Characteristics of the Second Period of Modern Philosophy. — The Second Period of Modern Philosophy — extending from the beginning of the seventeenth century to the third quarter of the eighteenth — is characteristically a period of analysis and formal reflection. A leading problem — *the* leading problem — of the second period is the problem of the method of philosophical inquiry and reflection and of the sources of knowledge. As regards method and its view of the sources of knowledge, thought in this period is, predominantly, either empiricistic, intuitionalistic, or rationalistic. As analytic, the standpoint of this period is that of (phenomenal) consciousness rather than of self-consciousness. The most common results of thinking of the period, accordingly (that is, in consequence of the fact that on the standpoint of mere consciousness subject and object are separated), are, in the theory of knowledge and being as such, subjective idealism or else scepticism, on the one hand, and, on the other, dogmatism, or the arbitrary affirmation of a supersensible existence; in the theory of nature, mechanism; in that of will, determinism. The truth of the foregoing assertions can, of course, be established only in connection with the presentation and characterization of the systems of the period. The actual historical connection of systems in this period is such that it is impracticable to attempt to group them under the separate heads of "empiricistic," "intuitionalistic," and "rationalistic" systems. The systems will be characterized as they are individually dealt with.

§ 44.

Francis Bacon (1561–1626). — Francis Bacon was the son of Nicholas Bacon, for many years lord-keeper of the great seal under Elizabeth, and Anne Cooke, daughter of

Sir Anthony Cooke and said to have been a woman of extraordinary learning, culture, and piety. At the age of twelve, the "young lord-keeper," as Elizabeth styled the rather precocious youth, entered the University of Cambridge. Here he acquired, if not a very profound knowledge of Aristotle himself, a decided antipathy to the Aristotelian philosophy as then taught, regarding it as disputatious and barren. He left the university, at the age of fifteen, to study law in Gray's Inn, London. Soon afterwards he was sent with the English embassy to Paris to acquire a knowledge of the human "world" in general, and of diplomacy in particular. The death of his father, in 1579, recalled him from Paris to England, and threw him entirely on his own resources. He decided to practise law; but he had a larger than merely professional ambition, namely, that of being grandly useful to "his country, the Church, and humanity at large." He had, as he himself avowed, "early taken all knowledge for his province," and had conceived a design of beginning a revolution in human knowledge and action by the discovery of a method that would supplant the empty Scholastico-Aristotelian logic, on the one hand, and a blind, slavish, and delusive empiricism on the other. Passing through Gray's Inn, he took a place at the bar (1582); sat several times in Parliament during the reign of Elizabeth, at one time seriously offending the Queen and damaging his prospects of advancement by honest opposition to a certain plan cherished by her Majesty; acquired standing as queen's counsel, after having failed in an attempt to secure an appointment as attorney-general, then as solicitor-general, and, again, as master of the rolls; held, in the reign of James I., successively the positions of king's counsel, solicitor-general, attorney-general, privy councillor, lord-keeper, and lord-chancellor (1618); was knighted, and invested with the titles of Baron Verulam and Viscount St. Albans (1621). That he really served his country is doubtful, since he was always an upholder of royal prerogative as against the privileges of the Commons, and was guilty of political corruption (though not of receiv-

ing of bribes), and fell in disgrace from his high position as chief minister of justice. He *did* really serve the Church in the reign of Elizabeth by earnest endeavors in aiding to promote ecclesiastical unity and tolerance. What service he has rendered to humanity, by his philosophical achievements, may be judged of after a consideration of those achievements.

Works. — Most of Bacon's philosophical works came into being, and accordingly arrange themselves, with direct reference to a design early conceived, and followed up throughout life, which was nothing less than a design of inaugurating a reformation of existing sciences, the reconstruction of all knowledge. "The end of knowledge," says Bacon, is the "glory of the Creator and the relief of man's estate." The reformation of science has for its goal the rendering of it "active," or practical. To become truly "active" it must cease to be merely empirical, on the one hand, and merely abstract and formal on the other, it must have a method by which it may be both universal and concrete. The application of the method presupposes the existence of a collection of facts or phenomena as data. The systematic and complete application of the method to the interpretation of facts results in the knowledge sought. The application may be not only systematic and complete, it may also be merely tentative and incomplete. By way of illustration of the application of the method a series of graduated instances must be exhibited, and, further, a department of knowledge must be created to preserve truth accidentally discovered apart from the systematic application of the method. Preliminarily to the positive construction of science in the new sense, is needed a survey of the existing state of knowledges. The reformation of the sciences, the "Magna Instauratio," must, according to the foregoing analysis, have certain leading parts. These are represented by certain works of Bacon, as follows:[1] Part I. "Partitiones Scientiarum," or

[1] See the Prefaces and Introductions to the works of Bacon in the edition of Spedding, Ellis, and Heath; also Professor Adamson's article on Bacon in the "Encyclopædia Britannica" (9th ed.).

survey of the sciences, with which are concerned the "Valerius Terminus" (1603), which falls partly into the next class also, "Advancement of Learning" (1605), "Descriptio Globi Intellectualis" (1609), "De Dignitate et Augmentis Scientiarum" (1623), the last-named incorporating the substance of the rest; Part II. "Interpretatio Naturæ," the method of interpreting nature, with which deal "Partis Secundæ Instaurationis Delineatio et Argumentum" (1606, 1607), "Cogitata et Visa" (1612), "De Interpretatione Sententiæ duodecim" (—?), "Redargutio Philosophiarum" (1609), "Novum Organum" (1620), the last embodying the results of the others of this group; Part III. "Historia Naturalis et Experimentalis," the data or raw materials of science, represented by "Historia Ventorum," "Historia Vitæ et Mortis," "Historia Densi et Rari," "Sylva Sylvarum," etc., the last-named being the most important; Part IV. "Scala Intellectus," graduated examples of investigation conducted by the new method, represented by the work "Filum Labyrinthi" (1607?); Part V. "Prodromi," or anticipations of the new philosophy; Part. VI. "Active Philosophy," to be the work of future generations. There may be mentioned as indirectly connected with the "Instauratio Magna": "The New Atlantis" (a fragment), which is a picture of an imaginary state in which the principles of the new philosophy are embodied; "De Principiis et Originibus Secundum Fabulas Cupidinis et Cœli" (*circa* 1623), perhaps the most important of the very few of Bacon's works that concern themselves with really metaphysical conceptions; "Cogitationes de Natura Rerum," to be classed with the "De Principiis," etc. The celebrated "Essays" and "Wisdom of the Ancients" may be mentioned here; nor should the "Temporis Partus Masculus" (*circa* 1583), Bacon's first expression of the standpoint which distinguishes him among philosophers, be overlooked. The most important of Bacon's works are, of course, the "De Dignitate et Augmentis Scientiarum" and the "Novum Organum." The latter, it should be noted, is a fragment.

Philosophy. — 1. *The Survey of the Sciences*[1] (*Bacon's "Encyclopædia" of Existing Sciences*). *Introduction.* — Human knowledge has two, quite distinct, sources, — understanding and revelation: it is, accordingly, "philosophy" or "theology," "human learning" or "divine learning." "Human learning" may, upon the basis of the division of the understanding into the three branches, memory, imagination, and reason, be divided into history, poesy, and philosophy (in the narrower sense). "Divine learning" may be likewise divided.

History. — History is *natural* and *civil*, the latter comprising ecclesiastical and literary history. Natural History treats of nature as free, as constrained, or subject to rules of art, and as "erring," or varying: it is a history of "creatures," of arts, and of "marvels." Civil History is either memorials, perfect histories, or antiquities. Ecclesiastical History is the history of the Church, of providence, and of prophecy.

"*Poesy.*" — "Poesy," which is distinguished from history and from philosophy, in that it "bows things to the desires of the mind," whereas those two do just the opposite, is either epic, dramatic, or allegorical (the other kinds of poetry being regarded by Bacon as belonging to Rhetoric).

"*Philosophy.*" — "Philosophy" is either "divine," "natural," or "human," the last-named being styled also "humanity." But underlying these three branches of philosophy is a "*primitive or summary philosophy*," a *philosophia prima*, which, rather difficult of exact definition, may be described as a "receptacle for all such profitable observations and axioms as fall not within the compass of any special parts of philosophy or science, but are more common and of a higher stage." Bacon would here place, for example, the "axioms": "If equals be added to unequals, the wholes will be unequal," "All things change, but nothing perishes," etc.; and the conceptions, "quantity," "similitude,"

[1] We follow the "Advancement of Learning," supplementing it at points from the "De Augmentis."

"diversity," etc. This part of philosophy (Bacon thinks) is deficient as yet, being "mixed" and "confused," a "degradation of other sciences rather than anything solid or substantive of itself." — "*Divine Philosophy*," or "*natural theology*," is the knowledge of God obtained by the contemplation of his works. The ancient opinion that God's works are an image of himself is erroneous; in contemplating them we do not cognize God as he is in himself. God is really known only through revelation, or through faith. The ancient opinion "mixes religion and philosophy," to the great detriment of both, since this mixing has as result "an heretical religion and fabulous philosophy." Philosophy is interdicted from the direct consideration of God's nature. It is not so interdicted, however, as regards the nature of "angels" and "spirits." — *Natural Philosophy* has two parts, concerned, respectively, with the "acquisition of causes," and the "production of effects:" it is either speculative or operative, science or prudence. The two parts have a natural relation to one another, since there is an "intercourse between causes and effects." *Speculative Philosophy* is either *metaphysics* or *physics*, according as it treats of the "abstracted," "fixed," "rational," *i. e.*, of formal and final causes, or of the "material, transitory, changing and merely existent and necessary," *i. e.*, of material and efficient causes. Metaphysics, as just defined, must not be confounded with *prima philosophia*, the "parent or common ancestor of all knowledge," nor *vice versa*. Any doubt as to the possibility of metaphysics, or the possibility of discovering the ultimate forms, or causes, or natures, of things, may be annulled by the consideration that, as we know the alphabet without knowing all possible words, so may we reasonably think to determine the simplest forms, or principles, of sense, of voluntary motion, of vegetation, heat, cold, etc. Metaphysics, as treating of formal and final causes, has two parts, corresponding to these two classes of causes. Physics, as treating of the "contexture and configuration of things," of the "principles or originals of things," and

of the "variety and peculiarity of things," has three parts. We must carefully distinguish between the metaphysical and the physical consideration of forms. Physically regarded, the whiteness of snow or of froth, for example, has as its form or cause the "subtle intermixture of air and water;" but this account of whiteness is not an account of its essential nature or formal cause. Final causes — with which the second part of metaphysics is occupied — have no place whatever in physics. It is an error, however, to suppose that there is any "enmity or repugnance" whatever between final and physical causes. There is, for example, no incompatibility between the propositions, that "the eyelids are for the safeguard of the sight," and that "pilosity is incident to orifices of moisture." Further, it is no "derogation from divine providence" to affirm the compatibility of the two sorts of causes: the "wisdom of God is the more admirable when nature intendeth one thing and providence draweth forth another than if he had communicated to particular creatures and motions the characters and impressions of his providence." As regards the relation of metaphysics to the other branches of philosophy, Bacon explains his view by likening all knowledge to a pyramid, the base of which may be taken to represent history (*i. e.*, mere empirical science), the apex metaphysics, the intermediate portion physics. The superiority of metaphysics lies in the possession of certain two characters: *viz.*, a higher unity and a greater "capability of enfranchising the power of man unto the liberty and possibility of works and effects." Physics carries men in "narrow and restrained ways, subject to many accidents of impediments imitating the ordinary flexuous courses of nature; but whoever knows any form knows the utmost possibility of superinducing that nature upon any variety of matter, and so is less restrained in operation either to the basis of the matter or the condition of the efficient." Subsidiary to physics and metaphysics, but belonging to the latter rather than to the former, is the science of mathematics, the subject of which

is definite quantity (indefinite quantity being a subject of *philosophia prima*). Mathematics is pure or mixed: of pure mathematics there are two branches, treating respectively of "dissevered quantity" and "continued quantity." The use, or value, of mathematics is quite as much subjective (*i. e.*, value as a means of intellectual discipline) as objective. — *Operative Philosophy* has two recognized main parts, corresponding to the two principal divisions of Speculative Philosophy, — Natural Magic (corresponding to metaphysics), and Mechanics (corresponding to physics). Natural Magic has nothing to do with the degenerate magical arts of alchemy, astrology, etc. It is the deduction of operations from metaphysics, — applied metaphysics. Bacon here proposes, as a new part of natural philosophy, the making of an inventory of all extant discoveries, and the conducting experiments, and not only such as shall be esteemed of immediate, but also such as are of most universal, consequence for the discovery of other experiments and of causes. He proposes also, as a last part of natural philosophy, the making of "calendars of doubts," "calendars of popular errors," and "calendars of sects of philosophy." — *Human Philosophy*, "though the end and term of natural philosophy" in the intention of man, is but a "*portion* of philosophy in the continent of nature": separated from natural philosophy, it would be little better than "empirical practice." ("And generally let this be a rule," says Bacon, "that a partition of knowledges be accepted rather for lines and veins than for sections and separations; and that the continuance and entireness of knowledge be preserved.") Human Philosophy has two parts, one of which deals with "man segregate," or taken distributively, and the other with "man congregate": it is "simple and particular" or "congregate and civil." Simple Human Philosophy treats of the "league of body and mind," and of the body and the mind viewed separately. The science of the "league of body and mind" has two parts, one of which is called physiognomy, and the other is

without a name. The most important part of this science is that relating to the "seats and domiciles which the several faculties of the mind do take and occupate." (On this point Bacon is not dogmatic, but *inclines* to the doctrine of Plato.) Knowledge of the body is of four sorts, — relating to health, to beauty, to strength, and to pleasure; hence the four branches of physiology, — medicine, cosmetics, athletics, and the "voluptuary art" (music and painting). Medicine is deficient, in being too empirical and not taking comparative views. The knowledge of the Soul, as such, or *Psychology*, has two main branches, occupied, respectively, with the *origin and nature* of the soul, and with the *subject or substratum of the faculties*. "Considerations of the origin of the soul, whether it be native or adventive, and how far it is exempted from the laws of matter, and of the immortality thereof, should be bounded by religion." Bacon distinguishes a rational nature (of supernatural origin) and an irrational, or material, nature, in the soul. Two appendices of the branch of psychology are *Divination*, which is foreknowledge growing out of the nature of the soul in itself, and *Fascination*, the "power and act of the imagination intensive upon other bodies than the body of the imaginant." The consideration of the faculties of the rational soul has two branches, treating, respectively, of understanding and reason, and of will, appetite, and affection; hence the sciences Logic and Ethics. Between the two leading faculties, or, rather, groups of faculties, stands the imagination, which has the office of mediating between those faculties or groups, and also an independent office, as in Eloquence and Rhetoric. *Logic*, or the purely "rational" or intellectual branch of Psychology, has four divisions — "intellectual arts" — *viz.:* Inquiry, or Invention; Examination, or Judgment; Custody, or Memory; Elocution, or Tradition. Within the art of judgment falls the consideration of those false appearances, those idola, of human knowledge (which Bacon claims the credit of being the first to point out and explain) which hinder the right

operation of the understanding in judgment. (These *idola* are discussed at length in the First Book of the "Novum Organum." See *infra.*) A branch of the art of Tradition is Rhetoric, which has for its office the "application of reason to imagination for the better moving of the will." Rhetoric is an "excellent" art, and "can no more be charged with coloring of the worse part than Logic with sophistry, or morality with vice." Appendices of rhetoric are literary criticism and pedagogy. *Ethics* treats of the doctrine of the good (the *utile*), which is either private (or particular) or "communicative" (or general). The "communicative" sort of good is paramount; active life should take precedence over the contemplative. The "husbandry" which shall procure this fruit of life — the good — is culture of the mind, the real problem of Ethics. This depends upon a doctrine of human knowledge and a doctrine of moral culture. Ethics has hitherto (Bacon says) been deficient in a knowledge of the feelings and temperaments of men. — *Civil Philosophy* is "conversant about a subject which of all others is most immersed in matter" and "hardliest reduced to axiom." It has the three branches, "Conversation," "Negotiation," and "Government": civil society, that is to say, has three main ends to secure, — "comfort in loneliness," "advantage in business," and "protection from injury." "The sum of behavior" (in conversation) is "to retain a man's own dignity without intruding on the liberty of others." In negotiation, or business, a knowledge of human nature is of the highest importance: other things of value are slowness of belief, the giving of trust to deeds rather than words, "framing the mind to be pliant and obedient to occasion," etc. Speaking of Government, Bacon says, "All who have written of laws have written either as philosophers or as lawyers, and none as statesmen. As for the philosophers, they make imaginary laws for imaginary commonwealths; and their discourses are as the stars, which give little light, because they are so high. For the lawyers, they write, accor-

ding to the states where they live, what is received law, not what ought to be law. There are in nature certain fountains of justice whence all civil laws are derived but as streams." — *Divine Learning* "rests upon the word and oracle of God:" but great latitude is practised as regards the use of reason in religion. It is a defect in Divine Learning that it has not sufficiently inquired into the true limits and use of reason in religious matters. Reason has two uses in religion: (1) the "conceiving and apprehending of the mysteries of God revealed to us," and (2) the "inferring and deriving of doctrine and direction therefrom." There are two principal parts of Divinity: the matter or information revealed, and the nature of the revelation. Perfection or completeness in Divinity is not to be sought. The Scriptures require to be treated according to a method not applicable to any other written work.

2. *The New Method of the Interpretation of Nature. Introduction.* — The New Method, or Organon, is by Bacon distinguished from the Old, — the traditional logic having its source remotely in the *Organon* of Aristotle — as regards "end," "order of demonstration," and "starting-point of inquiry." As to end, the New Method aims ultimately at the invention of arts, not, like the Old, at the invention of mere arguments. As to "order of demonstration," the New Method entirely rejects the syllogism, because of the uncertainty of mere words, and of the fact that the primary notions which must form the content of the terms of the propositions constituting syllogisms are as yet vague and false from overhastiness of induction; and it proceeds regularly and gradually from one axiom to another, so that the most general are now reached only last. As to starting-point, the New Method begins with careful observation and induction, treating the received first notions and the immediate reports of the senses as inadequate and false. The Old Method was a method of "anticipation" or of applying preconceived notions to the judgment of nature: the New Method is a method of interpreting nature. Nor

is the New Method sceptical, any more than dogmatic; it does not assert or imply that nothing can be known, but rather the contrary. In the treatise on the New Method, *viz.*, the "Novum Organum," Bacon devotes one book, the first, (chiefly) to pointing out and explaining the *idola* of human knowledge, and a second to explaining the method itself.

The Idola of Human Knowledge. — Man is the "servant and interpreter of nature:" he can do and understand only so much as he has observed in fact or in thought of the course of nature. The unaided intellect, like the unaided hand, cannot effect much. To penetrate into the recesses of nature, we require a fixed and sure method. The mind must be led to particulars and their series and order, and must lay aside its preconceived, false notions and become familiar with facts. There are four sorts of false notions besetting men's minds, which must be known, either to the end that they be eradicated, or, if that be not possible, be not allowed to warp the mind in its search for truth. First, the human understanding has false notions because it is prone to suppose the existence of more order and regularity in the world than there really is: having once formed an opinion, it seeks to support it by all possible means; it is deeply impressed by that which suddenly strikes the imagination; it is restless; it is not a "dry light," but is clouded by the influence of the will and feelings; it is deceived by the dulness and ineptness of the senses; it is prone to abstraction, and to give substance and reality to things transitory. These false notions are, by name, *Idola Tribus* ("idola of the tribe or race"). Another class of false notions are those besetting individual minds as such, — *Idola Specus* ("idola of the cave"). They are such as result from the circumstances that particular men become attached to certain particular sciences or speculations, to the neglect of others, that some minds are more apt to mark differences, others the likenesses of things, some are given to the admiration

of antiquity, others to an extreme "love and appetite for novelty," etc. A third class — the most important — of idola, *Idola Fori* ("idola of the market-place"), are such as are due to the "alliance of words and names." A fourth class, *Idola Theatri* ("idola of the theatre"), includes the false notions caused by the (uncritical) reception of (ancient) systems of philosophy. — The destruction and avoidance of idola, though of very great importance, is but a negative and preliminary work in the advancement of human knowledge. The chief hope for that advancement lies in induction by means of contradictory instances (and this is as true in Ethics and Politics as in Physics). Hypothesis also may be of use, if cautiously employed.

The Positive Side of the Interpretation of Nature. — The (positive) interpretation of nature has two parts: 1, the eduction of axioms or forms from experience; and, 2, the derivation of new experiments from forms. There is, first of all, required for the discovery of forms: (1) a "muster or presentation before the understanding of all known instances which agree in the same nature (selected for investigation), though in substances the most unlike;" *i. e.*, what may be termed (is so termed by Bacon) a Table of Essence and Presence; (2) a "presentation to the understanding of instances in which the given nature is wanting (for the form ought no less to be absent when the given nature is absent, than present when it is present), and since to note all these would be endless, also the subjoining to the affirmatives of the negatives, and the inquiring as to the absence of the given nature only in those subjects which are most akin to the others in which it is present and forthcoming," — Table of Deviation or Absence in Proximity; (3) a "presentation to the understanding of instances in which the nature under inquiry is found in different degrees, more or less, which must be done by making a comparison either of its increase or decrease in the same subject, or its amount in different

subjects, as compared with one another," — Table of Degrees, or Table of Comparison. It is next necessary, in order to discover the "form" of a given nature, or the nature which always occurs with it as its cause, to exclude from investigation all natures not always found in conjunction with the given nature, or not found to increase or decrease when the nature increases or decreases. This process of exclusion is the foundation, but not the real beginning, of it in an affirmative sense; which is made only by a survey of all instances remaining after the process of exclusion. The result of this survey may be called the First Vintage. It is always of a somewhat tentative character, and requires to be supplemented by certain "helps of the understanding in the interpretation of nature and true and perfect induction." These helps of the understanding (only the first of which was ever fully explained, owing to the fragmentary character of the treatise on the Interpretation of Nature) are as follows: (1) prerogative instances (*i. e.*, instances of first importance); (2) supports of induction; (3) rectification of induction; (4) varying of the investigation according to the nature of the subject; (5) prerogative natures with respect to investigation (or what should be inquired of first and what last); (6) limits of investigation, or a synopsis of all natures in the universe; (7) application to practice, or things in their relation to man; (8) preparations for investigation: (9) ascending and descending scale of axioms. The prerogative instances — twenty-seven in all — are distinguished among themselves by their different values in relation to the "speculative" or the "operative" phases of induction, to the activities of sense and of understanding, etc. Certain instances, five in number, the "Instances of the Lamp" (the use of a fanciful terminology is characteristic of Bacon), have their significance in the fact that they assist the senses. Others, "by facilitating the processes of exclusion, by narrowing and indicating more nearly the affirmative of the form, or by exalting the understanding

and leading it to genera and common natures, etc., assist the understanding. Of Bacon's twenty-seven prerogative instances, it must suffice to notice in particular only one, — the Crucial Instance, or "Instance of the Finger-post," which, according to Professor Fowler,[1] is "by far the most celebrated of all": "When in the investigation of any nature the understanding is so balanced as to be uncertain to which of two or more natures the cause of the nature in question should be assigned, on account of the frequent and ordinary concurrence of many natures, Instances of the Finger-post are such as show the union of one of the natures with the nature in question to be sure and indissoluble, of the other to be varied and separable. For example, if it be found in any history worthy of credit that there has been any comet, whether high or low, which has not revolved in manifest agreement (however irregular) with the diurnal motion, but has revolved in the opposite direction, then certainly we may set down thus much as established that there may be in nature some such motion. But if nothing of the kind can be found, it must be regarded as questionable, and recourse had to other Instances of the Finger-post about it." Following are the mere names of a number of the instances: Solitary Instances, Migratory Instances, Striking Instances, Clandestine Instances, Instances of Range or Limitation. (It should here be said that it is not always easy to separate the instances clearly one from another, and in fact there appears to be considerable overlapping among them.)

Natural and Experimental History.[2] — Bacon's chief performance in the gathering of data for the new science is a collection consisting of one thousand "experiments," grouped, in no very systematic fashion, into ten equal divisions (termed "centuries"). One group relates to "percolation," another to the subject of musical phenomena

[1] See note on this topic in his edition of the "Novum Organum;" also "Bacon" in "English Philosophers" series.

[2] See Nichol's Bacon ("Blackwood's Philosophical Classics").

in general, another to that of sound, another to the ways and means of retarding or accelerating the ordinary processes of nature, three others to plant-management, two to miscellaneous topics, — heat, weight, growth and fruition, want of rain in Egypt, sources of fevers, — one to what would be at the present moment called phenomena of "telepathy." "Experiments" are distinguished by Bacon as "experiments solitary" and "experiments in consort." (Much the greater part of the "facts" of the "Sylva Sylvarum" were, according to one of Bacon's editors, drawn from a few then well-known authors, — George Sandys, Cardanus, Aristotle, Pliny, and, especially, the Italian Baptista Porta: some were gathered from hearsay, and some, finally, were the fruit of Bacon's own observation. The collection possesses little or no scientific value in itself.)

"*Principles and Origins.*"[1] — We may pass over entirely the remaining parts of Bacon's vast scheme, — unless, indeed, what we are about to discuss belongs to the Fifth Part, — and take up Bacon's metaphysical principles proper. Reality, according to Bacon, is not unknowable; scepticism is an "idle doctrine." Reality is not, indeed, an object of sense, but it is known through combined sense and understanding. The real — that to which the "new method" must guide us — is a primary matter, not formless, but having certain definite qualities. Beyond, or behind, this, we cannot by mere philosophy get. It is the First Cause within nature, and the cause of causes next to God Himself, and must be taken just as found. It were as foolish to try to get back of this as not to look for a cause of the immediate phenomena of sense. It is the primary qualities of this matter which are the ultimate objects of philosophy's quest, — the "forms." Philosophy is natural science. *Ultimate* reality, or God, is known only through Revelation.

Bacon's Position and Rank as a Philosopher. — Bacon deserves, in a certain sense, but not without qualification, the title often accorded to him of the "Father of Modern

[1] See Nichol's Bacon.

Inductive Philosophy." The method of induction had, as we have had occasion to see, been advocated in modern philosophy prior to Bacon: but Bacon was the first to make the method the object of comprehensive reflection, and to institute a formal investigation into its character; and, though his "analysis" of the method was imperfect, those who helped practically to perfect the method — Descartes and Newton, in particular — were not uninfluenced by what Bacon had done before them. Practically, it is true, Bacon was no inductive philosopher, but he clearly saw and stated the object of inductive philosophy, *viz.*, to discover "causes or facts of causation," and the importance of an "acquaintance with facts," and of complete analysis and cautious generalization. What he did not appreciate, was the value of certain things which more mature reflection upon induction has learned to emphasize, *viz.*, hypothesis, deductive inference, and verification. Bacon does not touch the metaphysical problems lying back of induction, *i. e.*, does not consider how it is possible, and what it means. But Bacon was something more than a philosopher of induction; he was an initiator of a critical attitude of thought, a real forerunner even, notwithstanding their wide differences, of the greatest of all critical philosophers, Kant; his doctrine of the idola of human thought is an anticipation (in the empirical sphere of reflection, it is true) of the "Kritik of Pure Reason" of Kant. That Bacon was not a speculative philosopher in the highest sense of the term scarcely needs be said. Though he condemned mere empiricism in method, the real was practically for him, as a philosopher, in the domain of mere consciousness as distinguished from self-consciousness, or from the union of the two. He is to be regarded as the initiator of the empirical direction in modern philosophy.

§ 45.

Thomas Hobbes[1] (1588–1679). — Hobbes, who sprang

[1] Prof. Robertson's "Hobbes" ("Blackwood's Philosophical Classics"); Hobbes's "Elements of Philosophy," "Leviathan," etc.

from a "plain English stock," was educated at the University of Oxford. He left the university with a very unfavorable opinion of the instruction and discipline in vogue there. Among the causes of his dissatisfaction had been the Scholastic, superficially formal treatment of logical, metaphysical, and physical sciences at Oxford. After graduation Hobbes travelled on the Continent, in the capacity of tutor to a member of the Cavendish family. (He resided with the family for more than thirty years.) He carried on classical studies; and made a translation (published 1628) of the History of Thucydides for the "purpose of showing the evils of popular government." Between the years 1621 and 1626 he was, it appears, private secretary of Bacon, and assisted in the translation of some of Bacon's works from English into Latin. In the years 1629–1631 a second journey was made by him on the Continent, and within not many years afterwards two others, all of which proved of the utmost importance for Hobbes's scientific development, since they brought him into direct communication with some of the most eminent men of science on the Continent, and acquainted him with the actual state of scientific discovery at the time. During the period of the Civil Wars and for some time before and afterwards (*i. e.*, from 1640 to 1651), Hobbes was again on the Continent; after that he lived in England continually till his death. His scientific and philosophical activity were for the most part completed before his final return to England from the Continent. Literary composition and acrid learned controversies occupied his later years.

Works. — Hobbes's chief philosophical works are, "Elementa Philosophica de Cive" (1642), "De Corpore Politico, or the Elements of Law, Moral, and Politic" (1650), "Human Nature, or the Fundamental Elements of Polity" (1650), "Leviathan, or the Matter, Form, and Power of a Commonwealth, Ecclesiastical and Civil" (1651), "Of Liberty and Necessity," etc. (1654), "Elementa Philosophiæ" ("De Corpore," "De Homine," "De Cive,"

1668). — (We may mention, of Hobbes's nonphilosophical works, his "Behemoth," a history of the Civil War, and a metrical translation of the "Iliad" and the "Odyssey.")

Philosophy. Problem, Parts, and End of Philosophy. — Philosophy is, according to Hobbes, the knowledge of causes; or, more accurately speaking, the knowledge of causes from given effects, and the knowledge of effects from already known causes: it is the knowledge of the generative and the generable; the knowledge of "nature." Philosophy is a science in the strict sense: it is, indeed, science itself (ἐπιστήμη). It has nothing to do with the supernatural (or nongenerable) or the eternal (the object of "faith"); it is not in any sense metaphysics or theology. It is distinct from experience as such, or the merely empirical knowledge of things (Aristotle's ἐμπειρία); it is distinguished from experience in that it is reasoned systematic knowledge, whereas experience is haphazard and reaches no universal conclusions. It has nothing to do with history, natural or civil, so far as these rest on experience (including authority or testimony). Philosophy, or science, as general knowledge, is a knowledge of names expressing the common attributes of things; its foundation is definitions (or the explications of the meanings of names), or when (as in the case of the simplest notions, space, body, motion, etc.) definitions are impossible, the nearest possible approach to them by mere indication or suggestion. The body of all primary or fundamental definitions, together with their direct consequences, constitutes *First Philosophy* (*philosophia prima*). All definitions or indications or suggestions of primary notions are expressions of abstract notions of things perceived by sense; all knowledge takes its rise in sense. But sense perceives only bodies and their attributes. This it can do only as motions proceeding from bodies affect the organs of sense. Bodies are in motion; their attributes, so far as they can be known at least, are generated by motion. By motion *in* bodies is generated the attribute of extension, the science

of which is *Geometry*. The theory of effects of motion *between* bodies is the *Doctrine of Motion*. The theory of motion as it affects the senses, producing the qualities of light, heat, sound, etc., is *Physics*. The doctrine of motions of the individual mind is *Moral Philosophy;* that of motions of minds associated is *Civil Philosophy*. If we add to the foregoing divisions Logic, or the science of reasoning, or computation (in the arithmetical sense), we have the main branches of Philosophy as the doctrine of bodies. These branches group themselves as follows: (1) Preliminary Sciences, — Logic and First Philosophy; (2) Natural Philosophy, — Geometry, the Doctrine of Motion, Physics; (3) Civil Philosophy, — Moral Philosophy and Civil Philosophy (in the narrower sense). "The end or scope of philosophy is," says Hobbes, "that we may make use to our benefit of effects formerly seen; or that by the application of bodies to one another we may produce the like effects of those we conceive in our mind, as far forth as matter, strength, and industry will permit, for the commodity of human life."

First Philosophy. — It is possible to conceive all things annihilated, except space and time. From the notions of space and time are derived all such notions as part and whole, division and composition, one and number, continuous and contiguous, beginning and end, finite and infinite. Space and time are the subjective correlatives of two primary attributes of body, *viz.*, extension and motion. The "attributes" extension and motion — and indeed attributes in general — do not form a part of, or even inhere in, body as such, but are merely our modes of conceiving body, or the "power body has of making itself to be conceived." The only necessary attribute of body is extension. The generation and the destruction of body are merely the generation and the destruction of the attributes of body (extension excepted). For us body is its attributes; and the essence of body is merely "that accident for which a thing gets its name." Body as

the *materia prima* of the Scholastics is an abstraction. The causes of attributes are motions. The causes of motions are other motions, and so on *ad infinitum*. The relations of bodies are purely mechanical. "An effect wrought in any patient is the generation or destruction of some accident, and the cause of this effect is nothing less than the aggregate of all accidents in agent and patient together, which being supposed present, it cannot be understood that the effect is not at the same time produced, and any of which being absent it cannot be understood that the effect is produced. Such is cause simple and entire, inclusive of *causa sine qua non*, which may be any one of the accidents that in a particular case is wanting to the production of the effect." All causes are either efficient or material, — formal and final causes are mere metaphysical figments, or, rather, special cases of efficient cause. For distinction's sake, efficient cause is in those beings which have sense or will, called final cause; the term "power" has meaning only as indicating a cause the effect of which is yet to be produced. There is a cause for every accident. The accident is "contingent" only as depending on its cause. That for which there is no cause is impossible, and *vice versa*. Everything possible will necessarily be produced. Bodies falling under the same sense belong to the same species. Relations, — identity and difference, likeness and unlikeness, equality and inequality, etc., are not accidents.

Geometry. — Hobbes's treatment of Geometry concerns it chiefly as regards its form or method. Geometry is, in this regard, the pattern of all (demonstrative) sciences. It is so because in Geometry we generate the very objects to be known, — lines, surfaces, figures, etc., — and thus know them in their very causes.

Doctrine of Motion. — Motion is universal. Non-visible motion, or motion occurring in less time and space than can be conceived, is nevertheless real and effective motion. It may be termed "endeavor:" it is indestructible, and propagates itself *ad indefinitum*. All motion has for its

cause other motion, and that another, etc. Motion is either "simple circular" motion or "compound circular" motion (or motion about an axis).

Physics. — Physics, or the doctrine of concrete material existence in general, is dependent upon experience ; has therefore an *a posteriori* character, herein differing from Geometry and the Doctrine of Motion. Since time and space, and, consequently, all things as conceived under the forms of them, are purely subjective, there is no proving from them the infinity of the real world in time and space ; there is no necessary connection between body as it is in itself and the notions of time and space. From the subjectivity of the notion of space follows the meaninglessness of the idea of the vacuum as applied to the real world. The real world, in fact, is a plenum of bodies, visible and invisible, — solid, fluid, and both solid and fluid. Physical continuity depends on the omnipresence of the perfect fluid, æther, which fills all space not otherwise occupied. Æther is common air minus the solid particles commonly mixed with air. Its existence is predicated only as an inference from the fact of action at a distance, as, for example, in the case of objects affecting our senses. Upon the movement of the æther in and out of the interstices of bodies depend the phenomena of rarefaction and condensation. Æther transmits motion equally in all directions and without any loss. It is through the medium of the æther that the sun by its motions rules the solar system, as regards movement, light, heat, etc. Visible bodies are aggregates of quasi-atomic bodies everywhere floating in the æther.

Moral Philosophy. — The soul of man cannot be immaterial, since all that really exists is material or extended. The chief seat of the soul is the heart, from which are distributed through nerves to the brain and the rest of the body the impulses of both bodily and mental life. The powers of the soul are two, — cognitive and motive, the latter depending upon the former. Our ideas of external objects are merely subjective reactions from the heart in

response to impressions made by external motions on the organs of sensation. Not every reaction is sensation, but only "that which at several times is by vehemence made stronger than the rest, and which deprives us of the sense of other phantasms, as the sun deprives the rest of the stars of light." The "subject" of sensation is the entire organism; the object is real body (not the subjectively conceived qualities). We objectify body, because the "endeavor" of the heart in response to external stimulation is felt as outgoing, and "seemeth to be some matter without." A necessary condition of sensation is a perpetual change of object of sensation: "to be sensible of the same thing" is "not to be sensible at all." The continuance of motion in an organ of sense, after the removal of the cause exciting it, produces imagination and memory, which may, therefore, be termed "weakened sense," and are, in fact, sense overpowered by newer sense. Transition from one imagination to another occurs only in case the latter has once been before sense: the principle of association, in other words, between acts of imagination or of memory, is that of contiguity. Connected acts of imagination or memory constitute "mental discourse." The power of conjoining ideas otherwise than they are conjoined in mere experience, and of giving them a definite and fixed succession, is reason. In the fixing of the succession of ideas language is a necessary medium, since only by it are we able to comprehend many things together in their unity, and relieve ourselves of the burden of our ideas merely collectively taken. Reason is not inborn, nor a product of "experience," but an acquisition made by "industry," — by "apt imposing of names and proceeding in orderly method from the elements, which are names, to assertions made by conversion of one with another." When an "endeavor," or non-visible motion, from the heart towards the organ of sense is accompanied with a feeling of pleasure or pain, there is also an accompanying endeavor towards or away from the organs of motion, which may be called appetite (desire) or aversion. The pleasure

and the appetite, the pain and the aversion, are one and the same thing viewed from different sides. Pleasures and pains are either bodily or mental. Mental pleasures and pains involving the sense of power (*i. e.*, of one's faculties, knowledge, place, riches, etc.) are passions. The simple passions are appetite (desire) and aversion, love and hate, joy and grief. Appetite with expectation of obtaining that of which there is appetite is hope; with expectation of the opposite, despair. Aversion with expectation of hurt is fear; the same with expectation of avoiding hurt is courage. Sudden courage is anger. Desire to know "how" and "why" is curiosity, which is peculiar to man among animals. Laughter proceeds from sudden glory (elation). Pity for another arises from conceiving that his calamity may befall one's self, etc. The alternation of the passions of desire and aversion is the cause of deliberation. Will is the last appetite which presents itself in the act of deliberation, when there happens to be deliberation. In any case, it is merely appetite or desire: there is no freedom or purely rational self-determination. Whatever is the object of will or appetite is good; the opposite evil. The kinds of good are, "good in the promise" (the *pulchrum*, *i. e.*, beautiful), "good in the effect as the end desired" (the *jucundum*, or delightful), "good as the means" (the *utile*, or profitable). The corresponding sorts of evil are, — the *turpe*, or base; the *molestum*, or troublesome; the *inutile*, or unprofitable, hurtful. Man is, primarily, moved by selfish impulses. Happiness is not a mere feeling of pleasure or contentment: the "felicity of this life consisteth not in the repose of a mind satisfied, but in a continual progress of desire from one object to another, the attaining of the former being still the way to the latter." The passions of men determine not merely their actions, but also their conceptions of the natures and causes of things in general, causing them to attribute to invisible powers and agencies the phenomena about them. Hence arises religion. The idea of a first eternal cause is a consequence of man's curiosity,

or the impulse to know the "how" and "why" of things rather than of the mere passions, such, for example, as anxiety and fear regarding his fortunes.

Civil Philosophy. — Men are actuated by the three passions of the desire of safety, desire of gain, and desire of glory, — all sources of dissension. The natural state of men, consequently, is a state of war. In such a state the "life of man is poor, nasty, brutish, and short, and in it there is no property, no dominion, no mine and thine distinct, but that is every man's that he can get, and for so long as he can keep it." The undesirableness of such a state, the desire of things promotive of commodious living, and the hope of being able to attain them, together with the fear of death and the instinct of self-preservation, cause men to seek the conditions of peace, which, indeed, is the "first law of nature," the *second* being to defend one's self. These conditions men come to find in a mutual transference of right by means of covenant; the performance of the covenant made; the practice of gratitude, sociability, mercifulness; eschewing cruelty, pride, and arrogance; observance of equity in judging between man and man, etc. (Hobbes enumerates twenty-two such conditions, which he calls "laws of nature"); in a word, in not doing to another what one would not have done to one's self. Injustice, ingratitude, arrogance, inhumanity, and the like can never (Hobbes has to admit, in spite of his theorem, that man is essentially selfish) be made lawful in the "court of conscience": in other words, the state owes its existence partly, at least, to the idea of justice. Civil society comes into existence through the instrumentality (as has been intimated) of a contract, tacit or expressed, by which there is transferred to a single authority, consisting of one man or an assembly of men, of the individual's natural right of self-defence, and all is "made subject to the sovereign or supreme power thus constituted." This transference may take place "by institution or by acquisition, by free choice or by conquest." Civil society once formed is the "body

politic" (as contradistinguished from "natural or physical bodies"). The contract is an agreement not between the sovereign and the people, but between the people among themselves: it does not bind the sovereign, the authority of whom is, consequently, absolute and irrevocable. The sovereign has the "power of coercion, absolute command of military forces, power of judicature and of legislation, appointing all magistrates and determining all conditions of honor and order, judging all doctrines that may be taught." It is the duty of the sovereign to seek the safety and good government of the people, and, to this end, to educate them in right opinions regarding their duties in relation to the integrity and safety of the State. Practically, the sovereign must regulate, not only the secular, but also the religious, conduct of the people, since there must not be a conflict between the consciences of the individual and of the sovereign; hence the sovereign is the ecclesiastical as well as the political head (the "soul") of the "body politic." The *individual* retains in society certain indefeasible rights, such as the right not to "kill, maim, or wound himself, or kill others or perform any dangerous or dishonorable office in a case where refusal does not frustrate the end for which sovereignty is ordained." The individual is free to do those things as regards which the law has not limited his natural liberty. There are three forms of sovereignty: democracy, aristocracy, and monarchy. Monarchy is superior to either of the others. In favor of monarchy are the following considerations: the public and private interest of the sovereign cannot but be identical; deliberation on the part of the sovereign may be mature, since the monarch when in doubt may take such counsel as is requisite; the "resolutions of the monarch are not necessarily abnormally inconstant;" factions are impossible under a monarchy; the evils of favoritism are at least no greater in a monarchy than in an aristocracy; the inconveniences attending the succession of an infant are not greater than those attending the rule of an assembly; etc.

Results. — We have now to note a few points by way of indicating the general character of Hobbes's philosophy and its place in the history of Modern Philosophy. There is in Hobbes the same antagonism to the Scholastic mode of thought as in Bacon, though there is a nominalism in his logic which in spite of himself allies him in part with the Scholastics. There is also the same general empirico-sensationalistic view of knowledge and the same materialistic conception of reality in the doctrine of Hobbes as in that of Bacon, with the noteworthy difference that whereas Bacon underrated the value of mathematics and the deductive side of knowledge generally, Hobbes strongly emphasized them. Hobbes was the earliest systematic modern exponent of the mechanico-sensational theory of knowledge so prevalent at the present day: he was the inaugurator of lines of development in moral and political philosophy which have extended down to the moment; his egoistic theory of morals and his absolutist doctrine of the State have never failed in any considerable period of philosophical speculation to provoke thought, — generally in directions opposed to themselves. He attempted to construct — as no one in modern times before him — a comprehensive system. Inconsistencies may be found in it, — as, for example, that "motion" is employed in different meanings when applied to the two classes (physical and moral) of phenomena; that while extension is said to be real, space is treated as subjective; that though there are no rights in the state of nature, peace is the ideal of men in that state: but that the system breaks down, does not hide the scientific breadth of Hobbes's attempt.[1]

§ 46.

We pass now to a philosopher who is the earliest of the philosophers of the "intuitional" type, *Edward Herbert*,

[1] The reader may be referred to Professor Robertson's work on these and other points.

Lord Cherbury[1] (1582–1648). — Herbert was educated at Oxford, travelled several years on the Continent, distinguished himself as a soldier in the Netherlands, and was English ambassador at Paris. He came of a race of soldiers, and was noted as a knightly character and for courtly accomplishments.

Works. — The philosophical works of Lord Cherbury are: "De Veritate prout distinguitur a Revelatione, a Verisimili et a Falso" (1624), with an Appendix, "De Causa Errorum una cum Tractatu de Religione Laici et Appendice ad Sacerdotos;" and "De Religione Gentilium Errorumque apud eos Causis" (1645–1663).

Philosophy. — It is, according to Lord Cherbury, equally impossible that we should know all things and that we know nothing; some things we may be certain of. We know that man has certain faculties, and can apply them to the investigation of truth. We have, first of all, to become acquainted with our faculties, their classes, laws, relations to objects, etc.; then, we may attempt to determine the realities underlying the appearances of things. There is such a thing as truth — permanent, omnipresent, self-evident, manifold. Truth is of four kinds: truth of the object, — the agreement of a thing with itself (object must be of a certain size, have a principle of individuation, be adapted to some sense or faculty); truth of appearance, — agreement of a phenomenon with the essence of the object (object must be perceived for a sufficient time, be at a proper distance, be perceived through a medium, etc.); truth of perception, — agreement of our faculty with the object (faculty must be sound, attention must be directed towards object, etc.); truth of the mind in itself or the intellect (depends on a certain common nature in the mind). "The most important truths are truths of the intellect, which are truths entirely inaccessible to sense. They manifest themselves in every sane and well-organized mind; they seem to come

[1] Franck; Histoire de la Philosophie en Angleterre depuis Bacon jusqu'à Locke, par Charles de Rémusat.

from a supernatural source and to be destined for determining the nature of objects which present themselves in the theatre of the world." They are the notions — presenting themselves either immediately or after reflection — which all men have in common. They are original and derived. The former are known by the marks of priority, independence, universality, certainty, necessity, immediacy. The latter ("derived" notions) are discovered by ascertaining about what things there has been universal agreement among men. These *communes notitiæ* (common notions) are the object of the faculty of "natural instinct" (*i. e.*, according to Hamilton,[1] the νοῦς of Aristotle, *intelligentia* of the Schoolmen, "common sense" of philosophers in general). Besides this faculty are those of internal sense, external sense, and discursive reason, with all of which natural instinct coöperates in a greater or less degree. Internal sense discerns the inner intrinsic nature of things, the hidden types of being. The discursive faculty employs ten categories, expressed in the terms *whether, what, of what sort, how much, in what relation, how, when, where, whence, wherefore* (the categories of Aristotle). Of all our faculties the discursive reason is the most exposed to error; it "confounds the limits of our faculties, prevents or destroys the common notions, confuses internal sense, thereby making us deny our liberty: it is the faculty of the schools." The distinguishing attribute of man is religion. No man is really an atheist; though because of their detestation of certain false and horrible notions of the Deity, many suppose themselves, or are supposed, to be such. The end of religion is the practical obligating of men to what they should do of themselves, and the maintaining of the common unity of all. The essence of religion is contained in the following truths: (1) the existence of a supreme being; (2) the duty of worshipping this being; (3) virtue and piety as the prime elements of the worship of God; (4) repentance for transgression; (5) present and future rewards

[1] Hamilton's edition of Reid's works, p. 781.

and punishments, depending on the justice and goodness of the Supreme Being. God is revealed to man in his inner consciousness — in the yearning towards our eternal life and happiness — and in outward nature. The object of his revelation is his greater glory. Historically the stages of religion are: (1) pure instinctive worship of God in thought and purity of life; (2) worship with rites and ceremonies upheld by a sect; (3) idolatry, encouraged by false teachers. The first of these is, alone, natural and true religion. A true revelation fulfils the following conditions: it presupposes prayer and faith; it is immediately evident to each one (otherwise it is a mere tradition, history); it offers something of uncommon truth and value; it produces upon our faculties the effect of an inspiration. All error is incomplete, obscured truth.

§ 47.

The Cartesians. — We pass next to the initiators of the third main direction of thought in the Second Period of Modern Philosophy; *viz.*, the rationalistico-idealistic direction. Here have to be considered René Descartes, Arnold Geulincx, Nicolas Malebranche, Baruch de Spinoza. Minor names we are obliged to omit.

§ 48.

René Descartes[1] (1596–1650). — Descartes was born, of noble family, at La Haye, Touraine, in March, 1596. He received an excellent education at the Jesuit College at La Flêche (1604–1612), developing there special fondness and taste for poetry, eloquence, and mathematics. Even before his entering college, the mental trait of inquisitiveness showed itself very markedly (one story of him relates that his father had dubbed him "his philosopher"), and at school he was distinguished by a habit of "matutinal reflec-

[1] See "Descartes," by J. P. Mahaffy ("Blackwood's Philosophical Classics"); article in "Encyclopædia Britannica;" Descartes' works; etc.

tion" in bed. A deep distrust of tradition and his teachers, growing out of his extreme intellectual individuality, determined him to throw aside books for a time, and to study himself and the great world. He went to Paris. He took lessons in horsemanship and fencing; he spent a short time, at least, in something like dissipation, in which he displayed a special fondness for gaming. But his purely intellectual interests did not permanently forsake him; he theorized about fencing, and almost before his friends were aware of it, had secluded himself in an obscure quarter of Paris (1614–1616) to evolve a mathematical theory of music, and study physics. He was drawn from his seclusion, and in his pursuit of a knowledge of the world entered the army, first in Holland, and afterwards in Bavaria and other countries during the Thirty Years' War, quitting the army in 1621. In Holland he formed the acquaintance of a Dutch mathematician, Isaac Beeckman, from whom he received mathematical suggestions; and while in Bavaria he had strange and sudden mental revelations, which determined forcibly the bent of his thinking, regarding a universal scientific method, combining features of ancient geometry, modern algebra (which had been partially founded by certain Italian and German mathematicians), and logic. After some rather extensive travels in northern Germany and in Italy, and a considerable period spent in Paris studying the refraction of light, grinding glasses for optical instruments, and reflecting on human nature and God, he went, in 1629, to Holland, to breathe a freer intellectual atmosphere. There he resided in a dozen or more different places, according as the necessity of seclusion required, until 1649; returning to France occasionally on business or to receive honors bestowed upon him for scientific achievement. His studies were chiefly in physical "philosophy;" he read little, despised history, politics, learning, and art, studied anatomy and chemistry in the laboratory in search of a medical doctrine based on absolute demonstration, and pursued astronomical and meteorological inquiries, — all with

the purpose of carrying the physical explanation of phenomena as far as possible, and, to a considerable extent, as it would seem, in the spirit of Baconian empiricism, for which he seems to have had a certain admiration notwithstanding his very decided mathematical predilections. But in spite of his scientific independence, he preserved a certain respect for Church doctrines and awe of Church authority, since he feared to run the risk, by publishing his scientifico-philosophical works, of being accused of heresy, and took care to soften certain features of his physical doctrines that contravened established theological tenets. He did not, however, escape all *odium theologicum;* he was charged with atheism and infidelity by the universities of Leyden and Utrecht. In the year 1649 he accepted (reluctantly) the urgent and often-repeated invitation of Queen Christina of Sweden to come to her capital and reside, instruct her in philosophy, and found an academy of sciences. Change of climate and of mode of living, occasioning serious abridgment of the individual freedom he had always sought and cherished, resulted in his death, in 1650. — From the foregoing biographical sketch it clearly appears that Descartes was personally a true child of the Renaissance, — disdainful of the past, restless, intense, sanguine, egoistic. His philosophy corresponds closely with his character.

Works. — The principal philosophical works of Descartes are: "Discours de la Méthode" (1637), "Meditationes de Prima Philosophiæ" (1641), "Principia Philosophiæ" (1644), containing his physics, "Traité des Passions de l'Âme" (1649).

Philosophy of Descartes: Standpoint and Method. — The philosophy of Descartes has as its starting-point a definite conception of truth as union of knower and known object in intellect, as distinguished from sense, imagination, and memory. Truth, Descartes holds, presents itself only in those clear and distinct (as opposed to obscure and confused) ideas which intellect alone is capable of. In full keeping with his mental history as we have sketched it,

Descartes affirms that the precondition to the attainment of truth is thorough-going doubt. Not doubt merely for its own sake, however; scepticism is only a means to an end, a moment or element of method, not the goal of thought. And it must be remembered, of course, that the principle of universal doubt has application in theoretical matters only; in matters pertaining to conduct, says Descartes, we must follow as principle that which is merely probable. Now it is, in the first instance, easy to doubt all forms of so-called knowledge, except mathematics. Mathematics, therefore, suggests, if it does not immediately contain, the ideal of scientific method; it is not merely formal, like the old logic, — not merely the rule of the operation of a certain subjective faculty, — but is a method of arriving at objective truth of fact; and it possesses the highest degree of certainty. But the method sought must be absolutely universal, which mathematics is not. It has four elementary principles, which in their relation to one another are but steps in a single process, whose unity corresponds to the nature of truth itself. These principles or steps are as follows: (1) Never receive as true anything not certainly known to be such; avoid prejudice and precipitancy in judgment, and embrace nothing except that which presents itself so clearly and distinctly to the mind that there is no room for doubt about it; (2) Analyze every problem into as many parts as possible and as may best facilitate its solution; (3) Think in an orderly manner, commencing with objects that are the simplest and easiest to understand, and ascending by degrees to the knowledge of the most complex, assuming the same order among those which do not naturally have the precedence one over the other; (4) Make everywhere enumerations so complete and reviews so comprehensive as to be assured of having omitted nothing. Descartes, it is true, gives this as merely the method which he had resolved upon to assure himself personally of rising out of the region of confused, obscure, and, hence, doubtful things into that of clear and distinct truth; but he asserts,

nevertheless, that diversity of opinion results not so much from differences in minds as in methods of using them; that truth is the same for all minds following the true method; and, furthermore, the method of analysis and synthesis embodied in his four principles is, as we shall see, quite in harmony with the physico-mechanical character of his doctrines.[1]

Metaphysics: The First Principle, "Cogito, ergo sum." — If the truth is that only which is absolutely certain, which is perfectly clear and distinct to the mind, it would appear, at first, at least, that nothing whatever can be received as true. The presentations of the senses, of memory, of imagination, may all easily be questioned, may be treated as dreams, mere hallucinations, the machinations, say, of some omnipotent deceiver: they are, if believed in, mere prejudices and presuppositions, which have to be got rid of.[2] But there is one prejudice that I cannot rid myself of: I think, and (therefore) I am. However questionable all my ideas considered as representations of fact, it is not at all questionable that *I have* them: I could not be deceived if I did not have them, did not think (in the broad sense of the term), and hence did not exist. If it be said that I am deceived in thinking that I exist, I reply that I cannot here make a distinction between my existing and my thinking that I exist. I can *not* with *such* certainty say, "I *walk*, therefore I exist," because it is not absolutely certain to the understanding — however it may be to sense — that I *do* walk. My existence and my *thinking* are to understanding inseparable; walking and my existence are not thus inseparable.[3] The reasoning of *Cogito, ergo sum*, is not purely syllogistic. There is not wanting a premise to complete my thought, — as the premise, Whatever thinks exists. I immediately perceive intellectually my existence as a thinking being. Further, I perceive that I exist *as* thinking. I do not as yet perceive anything beyond that;[4] my doubt and

[1] Discours de la Méthode.
[2] First Meditation.
[3] Second Meditation.
[4] Ibid.

those creations of my imagination, the truth of which I can easily doubt, prove only that I exist as thinking. This principle, *Cogito, ergo sum*, is, then, the first material principle of philosophy; it is the foundation and criterion of all truth, and may fitly be compared to the single fixed point Archimedes required (but could not get) to move the whole world with his lever. In the intellectual perception of myself I have that feeling of certainty and that clearness and distinctness of idea which gives to mathematical truth its almost supreme value as regards method. All other ideas are true in so far as they possess the clearness and distinctness of this. In fine, whatever assertion I make concerning the existence of other beings than myself involves, as its support, the assertion of my own existence, and is to be judged by comparison with my assertion as to my own existence.[1]

The Knowledge of other Existences than Self: (1) *God.* — Now with regard to the existence of other beings than myself there is a possibility of my being deceived. To resolve the doubt here I am obliged to determine whether or not there be a God, and, if there is, whether or not he can be a deceiver. Where do I get the idea of a God, and what truth is there in it? Of all my ideas, I find some that have come from without, as those of sensible existences, others that are created purely by myself, such as those of a winged horse or a siren, and others still that neither come from without nor are created by myself, and must therefore be, as it were, innate; for example, the idea of truth, thing, thought, an infinite being. That the idea of an infinite being does not come to me from without, is self-evident; that it has not been produced by me may be argued from the fact that an effect can in no case be greater than its cause; *e.g.*, the perfect cannot in any way be an effect of the imperfect. I can easily produce, by abstraction, the idea of the indefinite; but not the positive idea of infinite perfection, for I am imperfect. The source of such an idea

[1] See Second Meditation.

can, originally, be only a being that is infinite in nature, *i. e.*, God; therefore the idea must have been implanted in me by him, — he must exist. I know that God exists also from the fact of my own existence; if I had been the author of my own being, I should have given myself all possible perfection, and I must attribute my continued existence as well as my creation to a God.[1] Further, the existence of God may and must be inferred from the very idea of the infinite. It is as impossible for me to conceive the idea of infinite perfection without that of existence as it is to conceive a triangle the sum of whose angles is not two right angles, or to conceive a mountain without a corresponding valley. I have, in other words, a distinct and clear perception of existence as a necessary attribute of an infinitely perfect nature. I can, it is true, separate in thought the idea of a finite thing and the existence of that finite thing; but the idea of the infinite would be self-contradictory and impossible to me if it did not include that of God's existence.[2] This proof of the existence of God, which resembles that of Anselm, is distinguished from the Anselmic proof as follows: Anselm infers the existence of God purely from the necessary implication of the idea of the perfect being; I rather from the clearness and distinction with which the necessary connection between infinitude and existence is perceived by the understanding.[3]

Existence of the External World. — Now, it is utterly impossible that God, a being of infinite perfection, can wish to deceive me. I know, therefore, that whatever I can clearly and distinctly conceive as existing does really exist, just as I know that God exists from the clear and distinct conception of him. I clearly and distinctly conceive the external world as existing, (*ergo*) it really exists.

Substances. — Among my ideas are ideas of things that are clearly and distinctly conceivable in and by themselves, and ideas of others that are not so conceivable. I can,

[1] Third Meditation. [2] Fifth Meditation.
[3] Fifth Meditation.

for example, clearly and distinctly conceive myself as a purely intellective being, as complete without the faculties of feeling and imagination; but I cannot conceive imagination and feeling as existent without me or some intelligent nature to which they belong; nor can I conceive the power of changing place and taking various situations without a certain nature to which it belongs. Things which are thus conceivable in themselves are *substances;* things not thus conceivable are *attributes* or are *modes*. There are three substances: God, ourselves, and external nature. Ourselves we know as thinking substance, God we know also as thinking substance and as author of ourselves and external nature, and nature we know, from the veracity of God, as extended substance. Primarily, God alone is substance, since we and nature depend on him; we and nature are secondary substances, having the attributes respectively of thought and extension.

Nature. — According to his view of substance, Descartes could not conceive nature as really distinct from God; nor did he, except for purposes of mere explanation. And for purposes of explanation he finds it necessary, in accordance with his mathematical method of knowledge, to treat of nature as mere extension and motion. The conception of force or power he expressly terms non-physical, — power belongs to God alone; and he excludes all interpretation of nature by the doctrine of final causes. Absolutely considered, nature is to Descartes eternal; and yet he finds it necessary for explanation's sake, and convenient for theology's sake, to treat nature as having a certain origin from material elements and motion. Extension is without limitation of any nature; hence there are no fixed atoms and no vacuum. Original matter (extension) is divided into innumerable undifferentiated parts set and kept in motion by the power of God. From the collision of the parts of moving matter there results a differentiation of matter into three sorts: (1) "first matter," comprising innumerable fine particles, *materia subtilissima,*

composing the sun and fixed stars, and producing heat by their motions; (2) "second matter," less subtile but very fine, composing the heavens and producing light by its motion; (3) a sort comprising larger particles and composing the planets, etc. The motion of matter is in no case produced by action at a distance, but by pushing of portions of matter by others, — in particular, by the finest of the differentiated material elements, or "first matter." By a rotatory motion caused by collision of particles vortices are produced in matter, and bodies and systems of bodies are evolved throughout space. The sum of motion in the universe is constant. The earth does not move of itself about the sun, but is carried about in a vortex (says Descartes, steering carefully between the Scylla of Catholicism and the Charybdis of Science). Organic bodies, like inorganic, are explicable on purely mechanical principles. "If we possessed a thorough knowledge of all the parts of the seed of any species of animal (*e.g.*, man), we could from that alone, by reasoning entirely mathematical and certain, deduce the whole figure and conformation of each of its members, and, conversely, if we knew the several peculiarities of this conformation, we could deduce from these the nature of the seed."[1] Animals are in fact mere automatic machines. Life in plants is due merely to motion and order of parts: life in animals is due to motion or circulation of blood, which in turn is due merely to changes of temperature. By a separation of particles in the brain are generated animal spirits, which are conducted by the nerves to and from sense-organs, muscles, and brain, giving rise to sensuous impressions and movements of muscles, etc. The pineal gland, in the centre of the brain and single in nature, is the seat of the soul.

The Soul. — As animals are mere automata, having no souls, so man has but the one rational soul, without the animal and vegetable souls of the ancient theorists. Of this

[1] Encyclopædia Britannica, vol. vii., art. Descartes.

soul we have, as already seen, a clear and distinct idea in perfect abstraction. We perceive the soul to be simple, unextended, or immaterial, and hence imperishable, except it be destroyed by direct act of its creator. The acts of the soul as such are either ideas or volitions, — the former being as acts relatively passive, the latter positively active. As to origin, our ideas are, as we have seen, innate, or impressed upon us from without, or made by ourselves. With regard to their truth, they may be classed as adequate and inadequate. Error in our ideas is a consequence of the incommensurateness of intellect, which is necessary in its action because determined by the nature of necessary being, and will, which is free: by act of will we may in judging receive and approve that which understanding does not clearly and distinctly apprehend. Innate ideas are, by virtue of their necessary origin in God, not thus subject to error. While the ideas of the intellect are clear and distinct, because innate, those of sense and imagination are obscure and confused, because they have a material origin: they are occasioned, though, since body and soul are distinct and disparate substances, not directly produced, by the changes in the animal spirits occurring in the brain. And as the body does not directly act upon the soul, so the soul does not in acts of volition work directly upon the body: it merely gives direction to the vital spirits in the conarium, or pineal gland, as the rider directs the movements of the horse. More directly dependent upon the association of body and soul than ideas and volitions are the passions which are involved in certain tendencies of the vital spirits, some more practical, and others more theoretical. Of the passions, six are primary: wonder, love, hate, desire, sorrow, and joy. The passions are controlled through the influence of ideas upon the animal spirits. In the control of the passions lies the essence of moral activity. By firm and definite judgments regarding good and evil we rise superior to passion and experience; the highest of all pleasures is the pleasure of rational activity.

God. — The union of body and soul, upon which the lower mental operations so closely depend, requires the immediate concourse of God with, or his presence to, both body and soul. God is perfect, necessary intelligence. His intelligence, however, and all else that exists, depend upon his free and arbitrary will.

Result. — The system of Descartes ends in dualism (of thought and extension, mind and matter), or at least a monism which is merely formal or mechanical: God is, after all, but a *Deus ex machina* in this system. Descartes *states* the problem of philosophy (from the point of view of self-consciousness as such), and makes clear the terms of it; but leaves these imperfectly synthesized, and the problem not completely solved. It becomes the endeavor of certain men nearly contemporary with Descartes to complete the solution. The question is, How shall the secondary substances be conceived in relation to one another and the primary substance; how shall mind and matter be conceived as related to one another and God? — It is scarcely necessary to say that as Bacon is the initiator of the empirico-realistic tendency of the second period of modern thought, Descartes is the inaugurator of the rationalistico-idealistic tendency.

§ 49.

Arnold Geulincx[1] (1625–1669). — Geulincx, born at Antwerp, took a degree in medicine and, perhaps, philosophy in the University of Louvain, and was afterwards for twelve years lecturer there. Exciting hostility by attacks on Scholasticism, he was compelled to leave Louvain. He went to Leyden and became a private lecturer in the university at that place. At one time he underwent extreme poverty, and would have died but for the assistance of a (Cartesian) friend, Heidanus by name.

Works. — "Saturnalia, seu Quæstiones quodlibeticæ in

[1] See Fischer, vol. i. (trans.).

utramque Partem disputatæ" (1660); "Logica Fundamentis suis, a quibus hactenus collapsa fuerat restituta" (1662); "Γνῶθι σεαυτόν sive Ethica" (1665), — his most important work; "Physica Vera" (1680); "Metaphysica Vera et Mentem Peripateticam" (1691); "Annotata præcurrentia" (1690); "Annotata majora in Principia Renati Descartes" (1691).

Philosophy. — Philosophy is divided into Metaphysics, Anthropology, and Ethics. Metaphysics is the doctrine of self, of body, and of God: Autology, Somatology, and Theology. Self-certainty is the basis of all knowledge. *Cogito, ergo sum:* "My activity coincides with my consciousness;" thought or will of which I am not conscious is not my thought or will. The self is simple. It is united to a body, which is composite in nature. The two are disparate, and cannot act upon one another. Their union is a miraculous one, and depends upon a power above body and soul, namely, God. He is the cause of motions in body and of sensations in me through these motions. As such he must be conceived as omnipotent will and thought. In relation to all other things "he is active, they are passive; he independent, they dependent; he is the absolute being; cause of himself, unlimited, perfect, necessary, eternal," etc. "Geulincx," says Fischer, "wavered between the theological and the naturalistic conception of the relation of finite minds to God. He regarded finite minds as creatures (*mentes, creatæ, particulares, limitatæ*), and at the same time as modes of God (*aliquid mentis*)." Conduct is the harmony of will and thought. The (four) cardinal virtues are diligence, obedience, justice, humility. "We must first perceive the voice of reason by making a careful study of ourselves, then obey it by doing what it commands, and, finally, make this obedience the guiding principle of our conduct, the constant rule of our lives. Thence the fourth and highest duty naturally follows: we must pretend to be nothing except what we in truth are, — instruments in the hands of God." Humility includes, on the one hand,

Despectio sui, and, on the other, *Amor Dei ac Rationis*.[1] The doctrine — of which Geulincx is the real founder — that the acts of body and of soul in their interrelation are merely *occasions* upon which supervene the causative operation of God, is known as Occasionalism.

§ 50.

Nicolas Malebranche[2] (1638–1715). — Nicolas Malebranche, son of the secretary to Louis XIII. of France, received a classical training at home (because of a feeble constitution), studied philosophy at the Collège de la Marche, and theology in the Sorbonne. He joined the Congregation of the Oratory, and took up the study of Church history and Biblical Criticism. He did not become satisfied and settled in thought until after the accidental reading, in 1664, of Descartes' "Traité de l'Homme," which determined him to philosophy forever. After ten years of reflection he published his (first and chief) work, "De la Recherche de la Vérité, où l'on traite de la Nature de l'Esprit de l'Homme et de l'Usage qu'il en doit faire pour éviter l'Erreur dans les Sciences." This occasioned controversy, in which, with others, Locke and Leibnitz took part, and was followed at intervals by other works, mostly theological in matter and aim. Besides theology and metaphysics, mathematics and physics also engaged his thought. His death is said to have been the consequence of an illness caused by a controversy with Bishop Berkeley in a personal interview.

Works. — Other works of Malebranche, besides the chief work above mentioned, are: "Conversations Chrétiennes" (1676, etc.); "Traité de la Nature et de la Grace" (1680); "Méditations Chrétiennes et Métaphysique" (1683); "Traité de la Morale" (1684); "Entretiens sur la Métaphysique et la Religion" (1688).

[1] See Kuno Fischer's History of Modern Philosophy, vol. i. (trans. by J. P. Gordy.)

[2] See ibid.

Philosophy. — Adopting the distinctions laid down by Descartes as to the faculties and the method of cognition, the relations of extension and thought, or mind and body, and God, as comprehending in himself pure thought and pure extension, Malebranche, under the general influence of his theological prepossessions, came to the, with him, cardinal position that we see all things in God, *i. e.*, we have knowledge of the true nature of existences by participation in God's knowledge of them. God's knowledge is a knowledge through pure ideas, or archetypes, of which he is the "place," as space is the place of sensible objects. The knowledge we have by this participation is rational or scientific, *i. e.*, geometrical knowledge. Our knowledge of the merely sensible aspect of things is confused and uncertain, and it is knowledge by things in their relations to us rather than of things in themselves. Our knowledge of our individual selves is, likewise, confused and uncertain: it is merely a matter of feeling or inner experience. Our knowledge of others is purely conjectural. What we and others are in ourselves and themselves is known to God (and perhaps also to spirits). (Descartes had declared the knowledge of ourselves to be the most certain of all knowledge.) Our knowledge of God as spirit depends on immediate illumination by him. Body as apprehended through ideas is mere (intelligible or non-sensible) extension. Real individual bodies are "modifications" or "participations," *i. e.*, specifications or limitations, of this extension produced by God through motion. Force does not appertain to body as such, but to God; and bodies moving or communicating motion do so only by God's presence and influence. Motion as originating with God is simple and unchangeable in its laws. As the ultimate essence of body is extension, so that of mind is thought, and differences of mind are a consequence of inclination or will, which is therefore related to mind in its essence as motion is related to extension. Will as such depends on God, and is his love: and, since he is source and end of all things, it is his love toward himself.

Particular will depends on relation of body and soul. This relation is founded on God: external objects are merely the occasion of ideas in us; our will is merely the occasion of our bodily movements: God alone produces ideas and movements. Instrumental in the reciprocal relation of body and soul are the passions, whose ultimate source is love, and whose end is the liberation of the soul from the constant care of the body. They are good or evil according to the nature of that which is their exciting cause, or their object. Enlightenment is the precondition to freedom from error through the passions. Our destiny is to live, through knowledge and love, in union with God, who is himself eternal wisdom and love.

Result. — In the system of Malebranche Cartesianism approaches more nearly than hitherto a monistic (substantialistic) standpoint. The secondary substances, thought and extension, are in real subordination to the primary, God. There is an assimilation to one another of opposed terms through the conception of God as the *place* of "ideas," as space is the place of sensible objects. This assimilation is an assimilation of thought to extension (rather than the opposite), and the system of Malebranche, though by its theory of knowledge of a theological cast, is by virtue of this peculiar character of the assimilation it contains, naturalistic also: it in fact (as Fischer suggests) borders upon the naturalistic pantheism of Spinoza, — whom we have next to consider.

§ 51.

Baruch de Spinoza [1] (1632–1677). — Spinoza, descended from a family of Spanish Jews that had fled to Holland to escape persecution, was born in Amsterdam. His education was conducted by a Talmudist, Saul Levi

[1] Spinoza's Works; Kuno Fischer's Geschichte der neuern Philosophie; Spinoza, a Study, by James Martineau; Ueber die beiden ersten Phasen des Spinozistischen Pantheismus, von Richard Avenarius; Noack; etc.

Morteira, through whom he became acquainted with the teachings of Maimonides (d. 1204) and Gerson (d. 1344), by an atheist physician, Franz Van den Ende, who taught him the classics, and possibly also impregnated his mind with naturalistic conceptions, and by a Cartesian, Ludwig Meyer, who instructed him in physical science; Spinoza meantime studying the works of Bruno and Descartes. His studies carried him beyond the faith of the Synagogue, and he, though once the hope of the Jewish doctors, had to undergo excommunication from the Synagogue. Hunted by persecutors, from whom, on one occasion, he made his escape barely with his life, he lived in rather close retirement in a number of different places, — Rhynsburg, Voorburg, The Hague. At one period, at least, he won a (frugal) living by polishing lenses. Nothing — not even a call to the chair of philosophy in the University of Heidelberg — could tempt him to give up his quiet and independent mode of life, which alone could shield him from the possibility of being disturbed in the pursuit of philosophical contemplation. He had a number of discreet friends, to whom he communicated his system as it grew. He was in close association with the (heterodox) Arminians at Rhynsburg. Directly or indirectly he was in communication with some of the most eminent men in the world of science and philosophy in Europe, — Huyghens, Leibnitz, Boyle, Tschirnhausen.

Works. — Spinoza's chief philosophical works are: "Tractatus Theologico-Politicus;" "Tractatus de Deo et Homine ejusque Felicitate;" "Tractatus de Intellectus Emendatione et de Via qua optime in veram Cognitionem;" "Ethica Ordine geometrico demonstrata et in quinque Partes distincta in quibus agitur, — I. De Deo, II. De Natura et Origine Mentis, III. De Origine et Natura Affectuum, IV. De Servitute humana seu de Affectuum Viribus, V. De Potentia Intellectus seu de Libertate humana;" "Tractatus Politicus in quo demon-

strantur quomodo Societas ubi imperium Monarchium Locum habet, sicut et Ea ubi Optimi imperant debet institui, ne in Tyrannidem labatur et ut Pax Libertasque Civium inviolata maneat;" "Epistolæ." Only the first-named of the foregoing works was published in Spinoza's life-time. The "Tractatus de Deo et Homine" etc. was not generally known to exist, until the middle of the present century. Spinoza's masterpiece is the "Ethica;" next in importance for the knowledge of his philosophy are the "Epistolæ."

Philosophy: Motive and Genesis of Spinoza's Philosophy. — The motive of Spinoza's philosophizing is primarily ethical. His ethical doctrines are prefaced by metaphysical and psychological doctrines, and supplemented by a political theory which constitutes, as it were, a scholium to his doctrine of the passions. It must be observed, however, that Spinoza's ethical theory culminates, as it begins, in metaphysics, so that metaphysics does not exactly occupy a subordinate position in his system. — Genetically viewed, the doctrine of Spinoza is, on the whole, a resultant of a combination of the Neo-Platonico-Cabalistic doctrine of Bruno and the Cartesian doctrine. Three general stages may be detected in Spinoza's thinking; the first of which may be characterized as naturalistic, the second as theistic, the third as substantialistic. It appears, from a certain portion of the "Tractatus de Deo et Homine," that Spinoza's first thought was that of *Nature* as the infinite and as altogether perfect in its totality. Next — as appears from another portion of the same work — he held the notion of God as the infinite, and God, too, viewed as a predetermining providence, permitting human freedom and the operation of final causes. If with the conception of the perfect all-inclusive and self-contained, *i. e.*, the conception of substance, there be joined the mathematical method of thought-development recommended by Descartes, we have the essence of the third phase of Spinoza's thought. The mathematical

method is the only method, as Spinoza assumes, suited to the conception, since it alone possesses always clearness and distinctness and demonstrative cogency, or, in other words, the self-evidence and complete determination corresponding to self-contained and all-inclusive being as content. It should be noted that all three phases contain, implicitly or explicitly, the notion of substance, and all are monistic.

Doctrine of God. — The first and fundamental conception in the final doctrine of Spinoza is the conception of that which by its very nature *is*, is only in and through itself, and is known in and through itself and only so. This, Spinoza terms *causa sui*, — defined (see Definition i.) as "that the nature of which involves existence, or cannot be conceived as not existing;" and substance, — defined (Definition iii.) as "that which is in itself and is conceived through itself, or that the notion of which needs for its formation the notion of no other thing." *Causa sui*, or substance, is eternal, since existence is its very essence (Definition viii.), free, since it "exists from the sole necessity of its nature, and acts from itself alone" (Definition vii.), is, hence, unconditioned, and is infinite, indivisible, one. It is known through attributes, — attribute being defined as "that which the intellect perceives of substance as constituting its essence" (Definition iii.). In and with its attributes it is God, — who may be defined as "absolute being or substance consisting of infinite attributes, each of which expresses the eternal and infinite essence." Of the (numerically) infinite attributes of God — each of which is conceived only *per se* and is not limited by any other, two only are known to us, *viz.*, thought and extension. God's thought is like that of man only in name; it excludes choice or purpose, since God acts solely from the laws of his own nature (Prop. xvii.), though "freely," because not governed from without. So far as he is extended, God is identical with Nature, in and with which he acts as immanent cause of all things

(Prop. xviii.). From the divine nature, consisting of infinite attributes, there follow "infinite things in infinite modes," the mode being an "affection of substance or that which is in another, and through which that other is conceived" (Definition v.). The modes in God differ from him as effect from cause, *viz.*, in that it has a cause; otherwise, each is known as the other, *i. e.*, they are alike. Modes are of two sorts, — finite modes, such as are, individually, all finite things, and infinite modes, which are, in one aspect, the permanent characters or qualities of finite existence in general, and, in another, necessary varieties or modifications of the infinite attributes of God. The intellect (see below, page 110) is an example of an infinite mode of thought; motion and rest are examples of infinite modes of extension. Infinite modes are a middle term between finite modes, on the one hand, and attributes, on the other. The modes are in God, and are modifications of his attributes, just as triangles, or figures in general, are "in" extension, and are modifications of it. And they follow from the nature of God's attributes; the infinite directly, the finite through others, *ad infinitum*. They follow necessarily, or as from the nature of the triangle it follows that the sum of the angles is equal to two right angles. All things are therefore necessary, nothing is contingent in any other sense than that of being dependent: *contingency* is merely a name for our ignorance. The same is true also of the term *final cause*,[1] — there is no purposing of things. All things exist necessarily and at once with their causes. In reality they "follow" one another only as one mathematical truth "follows" another, not temporally. A corollary to the foregoing is, that our mental attitude towards nature or the works of God should be, not that of one who praises or finds fault with what does or does not answer to a certain "ideal," but that of one simply trying to understand.[2]

[1] See the famous Appendix to Book I. of the "Ethica."

[2] Tractatus Politicus, cap. I., § 4.

The Attributes of Thought and Extension, — Mind and Body. — A "mode of God expressing his essence in so far as he is *res extensa*, is extended, is a body" (Part II. Def. i.). Modes of thought express the essence of God in so far as he is a *res cogitans*. As the attributes of God are conceived each *per se*, and are not limited by one another, bodies, on the one hand, and modes of thought, on the other, are independent of one another; and by ideas are to be understood, not anything passively received from body, but products of the mind's own action. An "adequate idea" is an idea which, as far as considered in itself and without relation to an object, has all the properties and characteristics of a true idea" (Def. ii.), *i. e.*, clearness and distinctness. The following propositions are axioms: The essence of man does not involve necessary existence, — *i. e.*, from the order of nature it may happen that this or that man may or may not exist (Ax. i.); Man thinks (Ax. ii.); Modes of thought such as love, desire, or whatever other affects of mind, are not given in the same individual without the idea of the thing loved, desired, etc., though the idea may be given without any other mode of thought being given (Ax. iii.); We know a certain body affected in many ways (Ax. iv.); We neither know nor perceive particular things besides bodies and modes of thought (Ax. v.). Though extension and thought, body and mind, are independent of one another, or do not interact, the order and connection of ideas is the same as the order and connection of things (Prop. vii. Part ii.); Mind and body are but two corresponding sides of the same thing; any bodily mode and the idea of that mode are one and the same thing; and in general, the essence of the human mind is to be the idea of some particular actually existing thing, *i. e.*, of some body. The idea of the body constituting the object of the mind is necessarily given in the mind. Bodies external to our own are known through their effects upon our bodies, — *i. e.*, the ideas of them are involved with the ideas of our own body. The number of our perceptions depends on the aptitude of

the body for being disposed in various ways. Acts of imagination are dependent on the fact that, if the human body is affected with a mode which involves the nature of an external body, the mind will continue to contemplate the external body as present until the human body is affected with such a state as excludes the notion of the presence of the body. Memory is a "concatenation of ideas involving the nature of the external bodies, according to the order of the human body." From this concatenation is to be discriminated that which takes place according to the order of the intellect, whereby the mind perceives things by means of their causes; and which is the same in all men. Self-consciousness, or the idea of the human mind, "follows in God, and is referred to God, in the same way as the idea of the human body:" it is an idea which is a member of an infinite series corresponding to, or parallel with, the idea of the body, and is united with the mind as the mind is with the body; the idea constituting the mind and the idea of that idea are two sides of one and the same thing. The ideas of the body are, so far as referred to the human mind alone, confused and inadequate; so, too, are the ideas of those ideas. They are true when referred to God or seen in their origin. Every adequate idea (see Def. iv. above) and complete idea is true. There is adequate knowledge of that, and that only, which is common to all things in part as in whole, for this constitutes the essence of no particular thing (Props. xxxvii. and xxxviii.). Such knowledge is expressed in axioms. Ideas in the human mind following adequate ideas are adequate. Abstract terms—being, thing, something, etc.—arise from the fact that the human body is capable of only a limited number of distinct states, and the states (and their corresponding ideas) become confused and generalized when their number exceeds a certain limit. There are three sorts of cognition: (1) opinion, or imagination (*opinio* or *imaginatio*), which may or may not be true; (2) reason (*ratio*), or "adequate" ideas, which is true but not demonstrated cognition; (3) intuitive science

(*intuitiva scientia*), which is "the adequate cognition of the essence of things through the adequate idea of the formal essence of certain attributes of God." In knowledge of the last named sort things are perceived in their necessary, eternal nature, or under the form of eternity, — *sub specie æternitatis* (Bk. II., Prop. xliv.). "Imagination" perceives under the form of time. "Reason" is the faculty of adequate ideas which follow from God in so far as he constitutes the essence of the human mind. The mind has adequate knowledge of the infinite and eternal essence of God, since it has ideas by means of which it perceives itself, its body, and external objects as actually existing, and since, further, any idea of any body or particular thing actually existing necessarily involves the infinite and eternal essence of God (Prop. xlvii.). "There is in the mind no absolute, or free, will, but the mind is constrained to willing this or that thing by a cause which also is constrained by another, and this by another, and so on *in infinitum*" (Prop. xlviii.). There is no independent power of willing, as of knowing, desiring, or loving. Men (ignorantly) suppose themselves free, merely because they have confused ideas of the causes of their deeds. "Free will" is identical with intellect: will otherwise is not distinguishable from the strongest desire. So-called suspension of judgment is merely inadequate perception. This doctrine of will has special advantages in a moral point of view: it teaches that we are truly free and happy only as we know God; it helps us to bear with equanimity inevitable misfortune; it teaches us not to despise, hate, ridicule, envy, or be angry with any one: it shows men how they should act as citizens, — *viz.*, not as slaves, but as those who unconstrainedly do those things which seem best.

Origin and Nature of the Emotions. — Human actions and emotions are to be explained by the same method that the geometer employs; the scientific treatment is merely, as it were, a "matter of lines, planes, and solids." "By emotions I understand affections of the body, by which the

body's power of acting is augmented or diminished, increased or decreased; also the ideas of those affections" (Part III., Def. i.). Subjectively viewed, an emotion is a confused idea by which the mind affirms that the power of the body or some part of the body to exist is increased or diminished, and by which the mind is constrained to think this or that thing rather than some other. When we are the adequate or real causes of our emotions (considered as affections of the body) we may be said to act. We are adequate causes in so far, and only in so far, as we have adequate ideas. The passions or passive emotions are to be referred to the mind only in so far as it involves negation, or can be considered a part of nature which cannot *per se* and without other things be distinctly and clearly perceived. But the mind is also independent of nature as such, is essentially *conatus*, or endeavor to persist in a certain manner of its own, — with a consciousness of this *conatus*. This *conatus* referred to the mind alone is will, referred to both mind and body is instinct, or appetite. Appetite, together with the consciousness of it, is desire, examples of which are benevolence, anger, cruelty, fear, modesty, ambition. Desires and passions are the two great classes of affects or emotions. As depending upon the body the mind suffers great mutation of condition, now passing to a greater degree of perfection, now to a less. Hence arise two distinct classes of passions, or two passions, joy and grief, the former being the passion by which the mind passes to a state of greater perfection, the latter the passion opposite to this. The passions are, further, divisible, with reference to the externality or internality of their cause. Examples of passions having an external cause are love, hate, devotion, indignation, envy; examples of passions having an internal cause are humility, penitence, pride, shame. Joy and grief are the most general emotions. Desire is to be classed with joy as an emotion by which the mind is active and passes from a lower to a higher degree of perfection. All actions which follow from emotions

which are referred to the mind, so far as it knows, are forms of "*fortitude*," which is either a desire by which each one endeavors from the dictate of reason alone to preserve his own being, — "*animosity*," or a desire by which one endeavors from the dictate of reason alone to assist others and unite them in friendship, — "*generosity*." (Spinoza discusses forty-eight emotions which he regards as the chief — not the only — ones.) We may cite one or two propositions further on the origin and nature of the emotions. "If the mind has been once affected by two emotions at the same time, it will when it is affected by either of them afterwards be affected by the other also." The mastery of the passions depends in considerable measure on the opposing of those by which the mind passes to a less degree of perfection by those by which it passes to a greater degree of perfection.

Human Servitude or Power of the Emotions. — Whatever strengthens that *conatus*, or endeavor to persist, which constitutes the essence of each thing, is good; the opposite is evil. Things are not good in themselves, but because and in so far as desired and striven for. The stronger the *conatus* the more virtuous we are. There can be no virtue, without the desire to exist; and there can be no virtue greater than the desire to exist, — none to which it is related as means to end. It follows from the foregoing principles that all forms of grief are evil. Some forms of joy may be evil if they exist in a very high degree, *e.g.*, love, titillation; others are, without qualification, so, — *e.g.*, conceit, great pride; hope is not good *per se*. In view of the fact that evil emotions may be disciplined by means of stronger and contrary emotions, it is important to determine what emotions are stronger than and contrary to others. An emotion whose cause we imagine to be present in us is stronger than one whose cause we do not imagine to be present in us; an emotion towards a thing present is stronger than an emotion towards a thing in the future to us; feeling towards a thing which we imagine to be necessary is more intense, other things being equal, than towards

a thing which we imagine to be contingent, possible, or not necessary; desire arising from joy is stronger, other things being equal, than desire springing from grief; love and generosity are stronger than hate, anger, contempt, etc. (All these propositions, it must be remembered, are demonstrated *geometrico more*, — like all others in the "Ethica.")

The Power of the Intellect or Human Freedom. — By the fact that the mind possesses the power of concatenating ideas according to a different order from that of the body, there are other ways of moderating and coercing the emotions and attaining to spiritual freedom than by opposing to them those contrary and stronger, — ways leading more directly, if not always more certainly, to reason. It is possible to moderate feeling (1) by separating it from the idea of its exciting cause and joining it to other ideas (Part V., Prop. ii.), (2) by referring it to many instead of few causes, and to an object of reason rather than of sense or imagination (Props. ix. and vii.), (3) by viewing things in their necessary character (Prop. vi.), or under the form of eternity. The last-mentioned method is not merely a means to freedom, but is in itself freedom. In viewing things *sub specie æternitatis* the mind is no longer passive or subject to nature, but active and *self*-determining and free from nature. This condition of mind has an emotional aspect, in virtue of which it may be called intellectual love towards the eternal or God,— for what the mind knows *sub specie æternitatis* it delights in, recognizing at the same time God as the cause of its delight. The intellectual love of God, *amor intellectualis Dei*, is the most constant of all emotions, since there is no stronger opposite emotion by which it can be destroyed (for no one can hate God), and cannot be polluted by envy or jealousy. It is a part of the infinite love of God towards himself (Prop. xxxvi.). It is necessary and eternal, and can be destroyed by nothing in nature. The cup of him who loves God with this love is full of joy. He cannot even desire that God should love him

(Prop. xxxvi., Schol.). This blessedness of his is not the *reward* of virtue but virtue itself (Prop. xlii.). But even though we should not know this love and that our minds are eternal, we ought to esteem above all things the rational endeavor for self-preservation and the rational endeavor to assist others and unite them in friendship.

The State. — The *conatus* of man is, ideally speaking, an endeavor, in accordance with reason. Nothing is so useful to man as that which promotes that endeavor. That endeavor, whether in its bodily or its mental aspect, depends on nothing so much as upon man: nothing, therefore, is so useful to man as man. The highest good of men is a good that is virtually common to all men, a good that all can rejoice in: and he who lives in society is freer and better than he who lives in solitude. While however all this is true ideally, society actually has its foundation in the emotions rather than in reason. The corner-stones of society as it actually exists are the two principles that the emotions must be coerced by those that are stronger, and that whoever hates any one will strive to injure him unless he fears that a greater evil will befall him ("Ethica," Part III., Prop. xxxix.). The State, therefore, has its end, office, and virtue in the providing for the security of the individual as against the emotions of others, — which it does by coercing those emotions by stronger and contrary ones. The right of the State — expressed in the most general terms — is that of coercion, a right which it possesses merely because of its might. The State, as long as it has the power to exist, can do no wrong. It alone has the power to break the contract on which it rests. Every citizen is bound to obey all laws, however absurd they may seem to him. The utmost liberty of opinion and discussion, short of sedition, should be permitted in the State. The right of coercion may be vested in a single person, a popular assembly, or in a select body of men: government, that is to say, may be a monarchy, a democracy, or an aristocracy. In a monarchy the sove-

reign should be a king with an advisory or consultative council; in an aristocracy a senate of four hundred, chosen from a patrician order of five thousand men, constituting a great common council, the fountain of all authority; in a democracy the body of "native" or naturalized citizens.

Religion. — Religion has a function quite different from that of philosophy. While the end of philosophy is truth, that of religion is obedience. To this end there suffices merely the belief that there is a single omnipresent highest being who loves justice and goodness, that reverence of God and obedience to him consist in righteousness and love of one's neighbor, that those alone who practise this obedience are happy, and that God pardons the repentant. Obedience to divine laws may be practised by all men, without distinction as regards their mental endowment; but philosophy is only for the select few. Religion may have a sufficient basis in the lowest form of knowledge, — *opinio* or *imaginatio;* philosophy is *scientia intuitiva*, the highest form of knowledge.

Result. — As compared with the pantheism of Malebranche, Spinoza's pantheism is the more naturalistic; and because more consistently substantialistic, since where substance (including mechanical cause and effect) is the supreme category, there is the realm of nature as such. The substantialistic pantheism of Spinoza closes the natural course of development of Cartesianism: Descartes' notion of God as substance *par excellence*, or as the substance of substances, attains in Spinoza's conception of God as the only substance, all other so-called substances being merely attributes, its fully developed form, since substance is in its very nature but one.

§ 52.

The Cambridge Platonists[1] *and Richard Cumberland: Anti-Hobbean and Anti-Cartesian.*

[1] See Tulloch's "Rational Theology and Christianity in England" (in the seventeenth century), vol. ii.

We may next consider a group of thinkers of the seventeenth century, whose position, if not their very existence, in the history of philosophy is due largely to the fact that they opposed the mechanico-naturalistic standpoint as advocated by the Cartesians and (especially) by Hobbes. They are the so-called Cambridge Platonists, Benjamin Whichcote, John Smith, Nathaniel Culverwel, Ralph Cudworth, and Henry More; and Richard Cumberland. The Cambridge Platonists may be classed as intuitionalists: Cumberland as an empirico-rationalist.

§ 53.

Benjamin Whichcote (1609–1683). — Whichcote graduated at Cambridge University, and was afterwards fellow there, and provost of King's College (1644). His sermons, for he became a preacher, are said to have kindled the religio-philosophical movement carried on by the Cambridge Platonists. His philosophical utterances are contained in certain "Aphorisms" on (1) the "Use of Reason in Religion," (2) the "Differences of Opinion among Christians," and (3) the "True Character of Religion." (1) "He that gives a reason for what he saith," says Whichcote, "has done what is fit to be done, and the most that can be done. He that gives no reason speaks nothing, though he saith never so much." "There is nothing proper and peculiar to man but the use of reason and exercise of virtue." (2) "Every man hath a right of judging, if he be capable; yea, can a man, ought a man, to believe otherwise than as he sees cause? Is it in a man's power to believe as he would, or only as the reason of the thing appears to him?" "He that is light of faith by the same reason will be light of belief; he will as easily disbelieve truth as believe error." (3) "Religion is intelligible, rational, and accountable: it is not our burthen, but our privilege. The moral part of religion never alters. Moral laws are *of themselves*, without sanction by will; and the necessity of them arises from *the things* themselves. All *other* things are in *order to these.*

. . . Morals are owned as soon as they are spoken, and they are nineteen parts in twenty of all religion. . . . Religion doth possess and affect the whole man; in the understanding it is knowledge; in the life it is obedience; in the affections it is delight in God; in our carriage and behavior it is modesty, calmness, gentleness, quietness, candor, ingenuity [ingenuousness?]; in our dealing it is uprightness, integrity, correspondence with the rule of righteousness; makes men virtuous in all instances." The foregoing aphorisms may be said to contain the seed-thoughts of most of the philosophic wisdom of the Cambridge Platonists.

§ 54.

John Smith (1618–1652). — John Smith was a graduate of Emmanuel, and fellow of Queen's College, Cambridge. Besides being very successful as a teacher, he won esteem for many excellences of character. His philosophical views are contained in a volume of "Select Discourses."

Philosophy: Knowledge. — Smith finds the test of knowledge in its relation to character rather than in the accordance with the formal requirements of syllogistic demonstration. He distinguishes between evidence and certainty, affirming that the "common notions of God and virtue impressed on the souls of men are more clear and conspicuous than any; and if they have not more certainty, yet they have more evidence, and display themselves with less difficulty to our reflective faculty than any geometrical demonstrations." In the last analysis all knowledge is self-knowledge.

Stages of Spiritual Attainment. — After the manner of Plotinus (whom he cites) and of Plato (in the "Phædrus," "Symposuim," and "Republic"), Smith distinguishes certain stages of spiritual attainment. He characterizes the types of intellect respectively belonging thereto as follows: "First is the complex and multifarious man, in whom sense and reason are so mixed and twisted up that his knowledge cannot be laid out into first principles," — the victim of

custom and vulgar opinion; next in order is the "rationalist," "who thinks not fit to view his own face in any other glass but that of reason and understanding, and in whom the *communes notitiæ*, or common principles of virtue and goodness, are more clear and steady, but who, being unfed and unfilled with the practice of true virtue, may be poor, empty, and hungry;" third, there is the mystic, who has an "inward sense of virtue and moral goodness far transcendent to all mere speculative opinions, but whose soul is apt too much to heave and swell with the sense of his own virtue and knowledge;" last we have the true "metaphysical and contemplative man," who, leaving behind his mere "logical or self-rational life, pierceth into the highest life."

Immortality. — Smith's conception of the dignity of human nature leads him directly to the conception of immortality (and thence to that of God). The highest proof of immortality is with him, man's capacity for virtue, and the indestructibility of virtue, — virtue making us partakers of the divine eternity. Immortality is proved also by the soul's incorporeality, its self-action, its apprehension of necessary truth. Incorporeality follows from the fact of self-consciousness; mere material atoms could not by any possibility beget thought, nor even mere sensation, which is far from being real, discriminative thought. It follows also from the unity and self-identification of the soul, — which are demonstrated by the facts of memory and the power to connect ideas into a single whole of conception, and are attributes entirely opposite to those possessed by matter. Again, the apodictical principles of geometry, and the directly-apprehended and unchangeable archetypal conceptions of morals, physics, and metaphysics, — *justice, wisdom, goodness, truth, eternity, omnipotency*, — require, in virtue of their purity, a higher source than mere matter.

God. — "Though God hath copied forth his own perfection in this conspicable and sensible world, according as it is capable of entertaining them, yet the most clear and

distinct copy of himself could be imparted to none else but intelligible and inconspicable natures; and though the whole fabric of the visible universe be whispering out the notions of a Deity, and always inculcates the lesson of its divine origin to the contemplation of it, yet we cannot understand it without some interpreter within." Self-knowledge, that is to say, is the key to the knowledge of the world as relates to God, and hence of God. This is true as regards not only the existence but also the attributes of God, — except that *we know* only in *part* and by *degrees* what *is* in *God eternally*. God's intelligence is reason; his acts are determined by his intelligence. He is constantly present with us as an unsatisfied ideal. He is revealed to us through the senses as well as the understanding. Revelation is an influx of the divine mind into ours.

Religion. — The main purpose of religion is to "purge and reform our hearts, and all the illicit actions and notions thereof." Religion, instead of being a "boiling up of our imaginative powers," or the "flowing heat of passion," is a new nature, informing the souls of men.

§ 55.

Nathaniel Culverwel (1615–1652). — Culverwel was a graduate and fellow of Cambridge University, and author of a philosophico-theological treatise, "Discourse of the Light of Nature" (1652). Culverwel criticises "those theologians who are unwilling to give to reason the things that are reason's, as well as to faith the things that are faith's," and inquires whether they "would be banished from these essences." He "cannot look upon reason only as a bird of prey that comes to peck out the eyes of men." Will the misguided theologians "pluck out their eyes because they cannot look upon the sun in his brightness and glory?" Culverwel, however, opposes the doctrine of innate ideas and the doctrine of the pre-existence of the soul, which had by Plato been assumed to account for "innate ideas." Introspective psychological analysis, "consulting one's own

breast," fails, he thinks, to disclose any such ideas; all knowledge originates primarily through the senses. Reason, in the complete sense of the term, is both a light which discerns eternal law, and a subject which obeys that law. The eternal law discerned by reason is God himself, who embraces in a single great order both matter and spirit. Law originates in reason and is *for* reason, — is essentially moral in character (as Hooker had already taught). What the law of reason is, we may learn not only by introspection, but from the *consensus gentium*, or the universal consent of men. "When you see so many rays from the same light shooting themselves into the several corners of the world, you presently look up to the sun as the glorious original of them all. . . . Certainly it is some transcendent beauty that so many nations are enamoured withal. It is some powerful music that sets the whole world advancing."

§ 56.

Ralph Cudworth (1617–1688). — Cudworth graduated at Cambridge, was fellow and tutor in Emmanuel College there, and was also regius professor of Hebrew, and master, or principal, of Clare Hall and of Christ's College. During an interval between different periods at which he was connected with the university he preached in one of the English parishes, winning a name for pulpit-eloquence. "Even at the early age of twenty-three" Cudworth had "mastered all the main sources of philosophy, mediæval as well as classical," and was particularly familiar with the Neo-Platonic and Jewish schools of thought. He is noted for his great learning.

Works. — Cudworth's principal works are: "The Intellectual System of the Universe" (1678), — a reply to Hobbes's "Leviathan, a Treatise concerning Eternal and Immutable Morality" (published 1731), "Liberty and Necessity" (published 1838).

Philosophy: Problems. — "These three things," says Cudworth, "are the fundamentals or essentials of true religion:

that all things do not float without a head and governor, but there is an omnipresent understanding being presiding over all; that God hath an essential goodness and justice, the differences of good and evil, moral, honest and dishonest, are not by mere will and law, and consequently the Deity cannot act, influence, and necessitate men to such things as are in their own nature evil; and lastly, that necessity is not intrinsical to the nature of everything, but men have such a liberty or power over their own actions as may render them accountable for the same and blameworthy when they do amiss, and consequently there is justice distributive of rewards and punishments running throughout the world." To establish by rational proof the three foregoing theses — *viz.*, the existence of God, of the truth of moral conceptions as such, and the fact of liberty of will — is the proposed general object of Cudworth's philosophizing.

The Existence of God. — Cudworth's proof of the thesis of the existence of God is largely merely a disproof of the contradictory. He defines atheism as "corporealism," — the "putting of matter in place of mind;" theism, on the contrary, "making the first original of all things universally to be a consciously understanding nature, or perfect mind." He classes as "imperfect theists" those who hold to the eternity of matter as well as mind. Atheistic were, actually, though not necessarily, the ancient doctrines of atomism and hylozoism. Purely atheistic is the "corporealism" of Hobbes. The logical origin of Hobbes's atheism lies in his doctrine of knowledge. If the Hobbean doctrine of knowledge, which is, fundamentally, that all knowledge is limited by mere sense, be true, we do not know that we know, "since one sense cannot judge of another or correct the error of it, all sense as such (that is, as fancy and apparition) being alike true." Sense itself is unknown, since "neither fancy nor sense falls under sense, but only the objects of them; we neither seeing vision nor feeling taction, nor hearing audition, much the less hearing sight or seeing taste or the like." To deny the existence of whatever may not

be an object of corporeal sense is to deny the existence of mind and soul in ourselves and others, since we can neither feel nor see any such things. Nevertheless, we are certain from inward consciousness, from "reason," — since "*nothing*" cannot act, — and from our observation of the actions of others, that soul and mind really exist in ourselves and others. And the atheist has as little reason to deny the existence of a perfect mind presiding over the universe as that of mind and soul in ourselves and others. To derive mind from a "supposed senseless, stupid, and inconscious life of nature in matter" is equivalent to deriving something from nothing. "If matter as such had life, perception, and understanding to it, then of necessity must every action or smallest particle thereof be a distinct percipient by itself: from which it will follow that there could not possibly be any such men and animals as now are compounded out of them; but every man and animal would be a heap of innumerable perceptions and intellections; whereas it is plain that there is but one life and understanding, one soul or mind, one thinker in every one." Similarly, there must be assumed in the universe as one universe a single mind ruling it. Further, were all movement in the universe merely mechanical, communicated, or passive, movement, motion would primarily proceed from nothing; hence there must be a self-moving, unmoved first mover. Again, matter could never have created mind; but a perfect mind could have created matter. Another proof of the existence of God (or perfect being) is as follows: Something must eternally have existed, and must consequently have existed naturally and necessarily, including necessarily eternal existence in its own nature; hence have been absolutely perfect. Still another proof may be given thus: "Knowledge is possible only through ideas, which must have their source in an eternal reason. Sense is not only not the whole of knowledge, but is in itself not at all knowledge: it is in itself wholly relative and individual, and not universal until the mind adds to it what is absolute and universal. Knowl-

edge does not begin with what is universal: the individual is known by being brought under a universal: the universal is not gathered from a multitude of individuals. And the universals, *νοήματα*, or ideas, which underlie all knowledge of men, which originate it, and do not originate in it, have existed eternally in the only mode in which truth can be said to be eternally existent, *i. e.*, in an eternal mind." Another proof offered by Cudworth of the existence of God is that of Anselm, slightly modified.[1]

God in Relation to Matter: The "Plastic Nature." — To suppose that "God himself doth all immediately, and, as it were, with his own hands, forms the body of every gnat and fly, insect and mite, is to render divine providence operose, solicitous, and distractious." And, apart from this, the slowness and imperfection of actual nature confute such an idea. There must exist between God and matter a third nature, which may be termed the "plastic nature." "It is a certain lower life than the animal, which acts regularly and artificially according to the directions of mind and understanding, reason and wisdom, for ends, in order to good, though itself do not know the reason for what it does, nor is master of that wisdom according to which it acts, but only a servant to it, and drudging executioner of the same, it operating fatally and sympathetically according to law and commands prescribed to it by a perfect intellect, and impressed upon it; and which is either a lower faculty of some conscious soul, or else an inferior kind of life or soul by itself, but essentially depending upon an higher intellect."[2] To suppose that "every plant, herb, and pile of grass has a plastic or vegetative soul of its own were unreasonable, but there may possibly be one plastic unconscious nature in the whole terraqueous globe, by which vegetables may be generally organized and framed, and all things performed which transcend the power of fortuitous mechanism."

[1] See Professor Flint's article on Cudworth in the "Encyclopædia Britannica," on these proofs.

[2] See "Intellectual System of the Universe," book i., ch. iii.

Eternal and Immutable Morality. — Cudworth's theory of the foundation of morality, intended as answer to Hobbes's mechanico-sensational theory, is summed up in the following propositions: (1) Things are what they are by nature, not by mere will; (2) Things are immutably and necessarily what they are, — there is no such thing as an "arbitrarious essence, mode, or relation that may be made indifferently anything at pleasure;" even when a divine or human command makes a thing before indifferent obligatory or unlawful, the real element of morality depends upon the right or authority of the one who gives the command, which right or authority is founded on natural justice and equity or on antecedent obligation to obedience in the subjects; the moral quality of acts does not depend on the mere will or pleasure that enjoins them. Cudworth's doctrine of morality rests immediately on the epistemological doctrine that knowledge, in the proper sense of the term, is not born of sense, which is merely receptive and mutable, like the things of which alone it takes cognizance, but of intellect, and is as such true and eternal. The mind, characteristically, acts by an inherent power of its own, and has not only fleeting "sensations" and "phantasms," but also noëmata, or pure conceptions, to the essence of which, as the objects of pure actuality or self-determination, it pertains to endure. Among such conceptions are those of *right, justice,* and the like.[1]

Liberty and Necessity. — Cudworth admits free will in man in so far as man, because of an imperfect nature, may at times be unable to make an intellectual choice or distinction between objects. Otherwise man is not "free," — as God is not, in any sense.

§ 57.

Henry More (1614–1687). — More went from Eton College (Grammar School at Eton) to Christ's College,

[1] The student may profitably consult the monograph by C. E. Lowrey, Ph. D., entitled, "The Philosophy of Ralph Cudworth," etc. (N. Y., 1884).

Cambridge, where as student or as fellow he lived recluse-like most of his adult life. As a youth he exhibited great sensitiveness of feeling. His parents were stanch Calvinists; the Calvinistic faith was utterly repulsive to him. After passing through a religious ferment, he found mental satisfaction in the study of the doctrines of the Neo-Platonists, the Cabala, the mediæval Mystics, and Boehme. He believed himself to have a direct sense of the presence of a higher life in him, and he strove intellectually and emotionally for a union with the divine principle of things. Though a sort of recluse, he had a warm love for visible nature. His life and character are said to have been of special beauty. Like Cudworth, he was deeply learned in the history of philosophy.

Works. — Of More's works may be mentioned: "Antidote against Atheism," "Immortality of the Soul," "Grand Mystery of Godliness," "Mystery of Iniquity," "Divine Dialogues" (1668), "Enchiridion Ethicum" (1668), "Enchiridium Metaphysicum, or Manual of Metaphysics" (1671), "Letters to Descartes." He wrote treatises on Boehme and Spinoza.

Philosophy: Problems. — The character of More's philosophizing was determined by his opposition to the doctrines of the unphilosophical theologians of his time, and of Descartes and Hobbes. He strives to establish against the theologians the rights of reason in religion, and the rationality of (Christian) religion. "For mine own part, reason seems to me to be so far from being any contemptible principle in man that it must be acknowledged in some sort to be God himself." To make clear this point he distinguishes the divine reason as the *ratio stabilis*, a "kind of steady and immovable reason discovering the connections of all things at once," and the human reason as the *ratio mobilis*, or "reason in evolution," and a real "participation of that divine reason." The "logos, or steady comprehensive wisdom of God, in which all ideas and their respects are contained, is but universal reason." The root of religion,

and indeed of philosophy, is moral purity, the very constitution of human nature itself. More's attitude towards Descartes and Hobbes will appear in what follows.

Matter and Spirit. — Matter is, not extension, as Descartes maintains, but "impenetrable and discerptible substance:" it is "resistance or capacity of keeping out stoutly or irresistibly another substance from entering into the same space or place with itself," and it is the capacity of endless subdivision into parts. Equally rational (Hobbes to the contrary notwithstanding) with the notion of an impenetrable and discerptible substance is that of a "penetrable and indiscerptible substance," *i. e.*, spirit. "Penetrability" implies "self-motion, self-contraction, and dilation;" indiscerptibility "implies that spirit of its own nature invisibly holds itself together, so that it cannot be disunited or dissevered." The idea of extension and space cannot be thought away: it is necessary, and implies a necessary reality, — one, indivisible, infinite. Matter is not such a reality; matter, as being essentially contingent, implies a necessary principle, spirit; the very idea of God as being absolutely perfect, implies a spiritual existence; the fact of motion points to an immaterial cause of motion, since matter is "homogeneal," and hence without a principle of difference and change such as motion implies, — matter, even if capable of producing motion, could not be conceived as doing anything more than "grinding itself into the more rude and general delineation of nature;" unquestionable testimony to the existence of ghosts and apparitions necessitates belief in the existence of spirit; above all, the fact of an ideal element in knowledge and of the freedom of the will prove the existence of spirit. Spirit is extended substance. If it were not, God would not be omnipresent. Whatever is, is in virtue of its simple being, *somewhere*, and is therefore in some sort of space. The space occupied by matter is an *ex*tensive space, that occupied by spirit, *in*tensive. Space, as both extensive and intensive, is the bridge (in More's

doctrine) between the corporeal and incorporeal, and the means by which the spiritual world brings the material under its dominion.

The Soul of Man and the World-Soul. — Spirit (soul) in man originated neither *ex traduce* nor by special creation when the body was formed, but from a previous state of existence, and is therefore immortal. It passes through three definite stages of development, — a terrestrial, an aërial, and an ethereal. While in the material body the soul has its seat in the fourth ventricle of the brain, where it may have the best possible communication with all parts of the brain. The soul of the world is a spirit "without sense and animadversion;" it pervades the "whole matter of the universe," producing such "phenomena as cannot be resolved into mere mechanical power." Evidence of the fact of the world-soul appears in gravity, which must be conceived as the effect of some "immaterial cause directing the motions of ethereal particles to act upon those grosser bodies to drive them towards the earth."

Morality. — Morality is the art of living well or happily. The essential condition of morality is freedom of the will. The freedom of the will we know directly: — we know it, sometimes, only too well, since we frequently do not do the good which we know we ought to do. There cannot possibly be a contradiction between divine prescience and freedom of the will, since contradiction cannot at all come within the sphere of divine omniscience. We know the good by a faculty which perceives instinctively and with absolute certainty its object, and delights in it alone, *viz.*, the "boniform faculty." This faculty in us is a "sense" corresponding to τὸ ἀγαθόν in the Deity. It is the most truly divine faculty in our souls, the image of the "divine sagacity," which in God is superior even to reason. The perception of this faculty consists in a living sense of its object, and not a merely formal apprehension of it. The characteristic fruit of the faculty is

love of God and one's neighbor. The passions of men are not necessarily evil, but may be servants of the notion of virtue. They may be compared to the winds, which purify the material atmosphere. The seat of the passions is the plastic nature (which occupies the heart). The fundamental passions are those of admiration, love, and hate. Love towards future good is desire; love exulting in the presence of the good is joy; etc. The primary virtues are prudence, sincerity, and patience. Derivative are justice, courage, and temperance. Subordinate are the virtues of liberality, gratitude, veracity, candor, urbanity, fidelity. "All virtue is summed up in 'intellectual love,' or love of the highest good. Just as numbers spring from unity and may be measured by it, so intellectual love, as a single and simple principle, is the source and rule of the diverse forms of good."

§ 58.

Richard Cumberland (1632–1718). — Cumberland was a graduate and fellow of Cambridge, and was rector at Brampton and Stamford, chaplain to the Lord Keeper of the Seals, and Bishop of Peterborough. His only philosophical work appears to have been "De Legibus Disquisitio Philosophica in qua earum Forma, summa Capita, Ordo, Promulgatio, et Obligatio e Rerum Natura investigantur; quin etiam Elementa Philosophiæ Hobbianæ, cum Moralis tum Civilis, considerantur et regulantur" (1692).

Philosophy. — Cumberland undertakes, in common with More and Cudworth, to vindicate the notion of a natural and immutable foundation of morality against the mechanico-sensational and individualistic theory of Hobbes. He rejects the Platonistic doctrine of knowledge upon which the Cambridge philosophers had based their ethical doctrine, and maintains a theory not unlike (indeed) that of Hobbes himself: he will as far as possible deduce the laws of morality by a geometrical method from a single fundamental principle. This principle is, the law of bene-

volence towards all rational beings, — including even God. This law has its foundation in the fact that since everything has a definite place in the entire world of things, and is so framed as to continue in that place and preserve its nature, human nature, or rational nature in general, is a certain end in itself to itself. An *a posteriori* proof of this law of nature is found in the fact of man's natural aptitude for social virtues or a common life with others. This aptitude appears in the possession of reason, of power of comparison and of perception of analogies, of speech, of efficiency of hand, of organs for the propagation of the human species, etc. This law has as sanction happiness and unhappiness, which common experience and the *consensus gentium* show to be consequent upon observance and violation of it. This sanction is one affixed by the divine will to the law, though the happiness consequent upon observance and the unhappiness consequent upon violation follow from human nature as well as from the divine will. Benevolence is good, however, apart from its connection with happiness. It promotes the common good: that it does so is (says Cumberland) as certain as that a moving point generates a line. The limited nature of our physical powers makes it necessary that, in the observance of the primary law of morality, we (1) distinguish between things within our reach and things not so, and (2) limit our benevolence as regards persons, times, places, etc. Since the whole depends upon its parts, a corollary of the law of benevolence is an individual right of property. After benevolence, the chief moral virtue is justice, which embraces liberality, courtesy, and domestic affection. All government and political authority have their foundation in the idea of benevolence.[1]

§ 59.

John Locke[2] (1632–1704). — Locke, who was the son of

[1] See Hallam's Literature of Europe, Part IV.

[2] Locke's works; "Life of Locke," by H. R. Fox-Bourne;

a Puritan attorney and small landowner of Somersetshire, attended, between the ages of fourteen and twenty, the Westminster Grammar School, at the head of which was a Dr. Busby, famous as a flogger of schoolboys. The impressions received by him there were of lasting consequence: he always afterwards had a hatred of mere scholasticality in thinking, which constituted a prime motive-force in his philosophizing. He entered Oxford University in 1652, and remained connected with that institution, as student, tutor, fellow, or honorary student, for many years. He was not, as an undergraduate, specially studious: he was repelled at Oxford, as at Westminster, by outworn Scholasticism. He was, however, a busy reader. The reading of Descartes, who greatly delighted if he did not completely satisfy him, gave him his first stimulus to philosophical reflection. Some thought of making divinity his profession was dispelled by the certainty that if he did so he would be obliged to surrender all real conviction; and he chose the study and practice of medicine. He fell into the society of men interested in physical research, and was elected member of the Royal Society of London. In 1665 he accompanied Sir Walter Vane as secretary on an embassy to Germany. In 1667 he became private secretary to the statesman, or politician, Lord Ashley. During Ashley's term as minister he received appointments as Secretary of Presentations, and of the Board of Trade. In 1675 (after Ashley's dismissal from office), Locke went to France on account of ill-health. He there had the society of men of intellectual eminence. He returned to England in 1679 to become again secretary and counsellor of Ashley, with whom he remained till the latter's flight to Holland four years later. Locke fled to Holland, and was for six years a (political) exile. In Holland his time was largely occupied with the preparation of his great "Essay," begun

"Locke," by Thomas Fowler ("English Men of Letters"); Green's "Introduction to Hume;" "Conduct of the Understanding," ed. by Fowler; "Locke," by Fraser (Blackwood Series).

fifteen years previously. He had the pleasure and advantage of social and intellectual intercourse with the Dutch theological liberals. Locke returned to England when the new political order began, and took an active part during the remainder of his life in the work of establishing firmly the quasi-republican form of government under the reign of William of Orange. Ill-health necessitated his declining the offer of certain positions of great honor and responsibility; but he did accept the office of Secretary of Trades and Plantations, and acted as a personal adviser of the chief republican statesmen about him. His published works, dealing with burning questions of his day, brought upon him many controversial tasks, which he always performed vigorously and effectively. In the scientific, religious, and political life of his age he was one of the most active and useful of men. Few philosophers, if any, in any age, have, indeed, been practically so efficient as Locke. His private life and character seem to have been most estimable.

Works. — Locke's chief philosophical works are: "Essay Concerning Human Understanding," first published in 1690, and enlarged twice or thrice within the following decade, the sixth edition being the fullest; "Thoughts Concerning Education" (1693); "The Conduct of the Understanding" (posthumuously published); "Second Treatise of Civil Government" (1689); Three "Letters" (1697–1699) to the Bishop of Worcester (Edward Stillingfleet).

Philosophy. I. *Human Understanding. Introduction: Scope, Value, and Method of the Proposed Investigation.* — Locke proposes in his chief philosophical undertaking, concerning human understanding, to inquire into the "original [origin] of those ideas, notions, or whatever else one may please to call them, which a man observes and is conscious to himself he has in his mind; the ways whereby the understanding comes to be furnished with them; what knowledge the understanding hath by those ideas, and the certainty, evidence, and extent of it; the nature and grounds of faith or opinion [or the assent which we give to any

proposition as true of whose truth we have no certain knowledge], and there as on and degrees of assent." He proposes to exclude from his investigation all "physical consideration of mind" and all examination into its essence and the "motions of our spirits or alteration of our bodies by which we come to have any sensation by our organs or any ideas in our understandings, and with the question whether those ideas do in their formation, any, or all of them, depend on matter or no." He hopes that undertaking, successfully carried through, "may be *of use* to prevail with the busy mind of man to be more cautious in meddling with things exceeding its comprehension, to stop where it is, at the utmost extent of its tether, and to sit down in quiet ignorance of those things which upon examination are found to be beyond the reach of our capacities; our business in this world being not to know *all* things, but only those which concern our conduct," etc. And he is confident that it "will be no excuse to an idle and untoward servant, who would not attend his business by candle-light, to plead that he had not broad sunshine, since the candle that is set in us shines bright enough for all our purposes." *Locke's proposed method* is what he terms the "plain historical one," the looking into his own mind to find what he can there, without even assuming that all "minds" are similar to his. And, in fact, anything like the methods of recent experimental psychology, comparative psychology, and of the theory of knowledge in the sense of an inquiry into the condition of experience, is quite foreign to Locke's conscious (or unconscious) plan. He proposes simply to take the "ideas he finds in his mind," and by exhausting the consideration of the agreements and disagreements among them, to gather what he can concerning their origin and meaning. — The investigation of human understanding has four parts: I. "Of Innate Notions;" II. "Of Ideas;" III. "Of Words;" IV. "Of Knowledge and Opinion."

Innate Ideas: (1) *Speculative Principles.*[1] — Defining

[1] Essay Concerning Human Understanding, Book II. ch. ii.

an idea as "whatsoever is the object of the understanding when a man thinks," "whatever the mind can be employed about in thinking," "something which a man observes and is conscious to himself he has in his mind," Locke combats the doctrine of innate ideas. Universal consent or agreement as to the (supposed) fact of innate ideas, or "constant impressions which the souls of men receive in their first being, and which they bring into the world with them as necessarily and really as they do any of their inherent faculties, proves nothing," says Locke, "if there be any other way shown how men come to that universal agreement in the things they do consent in." But there *are* no ideas to which mankind give universal assent: even such axiomatic truths as "What is, is," and "It is impossible for the same thing to be and not to be," are, to a large portion of mankind, unknown even. Again, "no proposition can be said to be in the mind which it never yet knew, which it was never yet conscious of," for otherwise all propositions that the mind is capable of assenting to might be regarded as "innate;" the *capacity* for ideas — if that is all that is meant — is, of course, "innate." If it be said that certain principles are innate in the sense that all men know and assent to them when they come to the use of reason, and that this is enough to prove them innate, the answer is that savages, children, idiots, and the illiterate employ reason long before they are aware of such truths as "What is, is," and "It is impossible for the same thing to be and not to be;" that if such truths were innate on *this ground*, so likewise are many others not regarded as innate; that it would be no more true to say that these truths are innate, on the ground that the time of assenting to them and the time of coming to reason coincide, than to say that speech could be innate if the time of coming to the use of it, and the time of first assenting to these truths, were the same; that, — overlooking time, — if all truths discovered by reason be innate, then equally are the *axioms* of mathematics (which are innate

if any principles are) and the *theorems grounded on* them innate, and it would follow that, since all reasoning is "search and casting about, and requires pains and application," what was imprinted by nature as the *foundation* and *guide* of our reason (as innate principles are supposed to have been) would require the *use* of reason to discover it! Further, on the alleged ground that ideas are innate which are assented to when the terms in which they are proposed are understood, innumerable propositions in mathematics, natural philosophy, and all other sciences would have to be (falsely) declared innate. And, indeed, why should innate ideas or principles *need* to be *proposed* in order to gain assent? It is not true to say here that men do not learn anything absolutely *de novo*: the truth is, rather, that ideas are no more innate than names are. To conclude, then, as regards "speculative" principles, such as, "Whatever is, is," and "It is impossible for the same thing to be and not to be," — they have not universal assent, they are not first known unless we make the absurd supposition that they can be imprinted in the mind and yet not be perceived, and finally, they appear least where what is innate shows itself most clearly, in the original impressions, if there be such, upon the minds of children, idiots, savages, and the illiterate being least of all corrupted by custom, borrowed opinion, learning, and education, though the minds of such persons are without innate principles. There are, therefore, no innate speculative principles.

(2) *Practical Principles.*[1] — And it is even more true that there are no innate practical principles, or principles of action. The proverbial "honor among thieves," for example, points not to any such innateness of practical principles, but merely to men's natural instinct of self-preservation. Again, "practical principles" that are denied in action, but approved in theory, are not really practical principles or "inclinations of appetite"

[1] Essay, Book I. ch. iii.

to good or evil. Further, moral rules require proof: one who had never heard the Golden Rule might, on first hearing it, ask, without absurdity, Why? Virtue is approved among men, not because it is innate, but because it is profitable. Nor is conscience innate: it depends on education, surroundings, custom; and sanctions different and even contrary things in different persons and peoples. And if conscience *were* innate, how could individuals and nations fail to regard it, and ever openly reject and renounce its rules? Again, to say "that innate principles of morality may, by education and custom and the general opinion of those among whom we converse, be darkened, and at last quite worn out of the minds of men," is, in effect, to deny the universality of assent, or to take it in a sense contrary to fact. But as a matter of fact we do not find innate principles "clearest and most perspicuous nearest the fountain, in children and illiterate people who have received least impression from foreign opinions." There *are* no innate practical principles; nor, indeed, do those who maintain their existence say what they are. Tradition, reverence for what seems established, want of skill, of leisure, of inclination to investigate, laziness, ignorance, education, precipitancy, have all combined to preclude the discovery of the real origin of the supposed innate practical principles.

Mere Ideas.[1] — Finally, there are no innate *ideas*, not to say principles. Who will affirm that the ideas of impossibility and identity involved in the principle, "It is impossible for the same thing to be and not to be," are innate? Can a child of seven (or even a man of seventy) state positively "whether a man, being a creature consisting of soul and body, be the same man when his bodies are changed"? The idea of whole and part presupposes those of extension and number, which no one, surely, will affirm to be innate. Whole nations have been without the idea of God, and different nations and individuals have

[1] Essay, Book I. chap. iv.

held widely different conceptions of the Deity, and since, if there were no other way by which we could have the idea, and it would, therefore, seem most natural that it, of all ideas, should have been imprinted upon the mind, and so be universally acknowledged, whereas such is not the case, we cannot suppose any other idea to be innate. The idea of substance, which might seem to be an exception, is not a positive idea, — we mean by the word *substance* merely something "which we take to be the substratum, or support, of those ideas we know." Lastly, to say that there are ideas in the mind which it does not actually "think on," is unintelligible.

Conclusion. — Innate ideas and principles so-called are, in fine, merely certain classes of ideas and principles that "forwardly offer themselves to all men's understandings," and are no more innate than arts and sciences. The mind is originally an empty "cabinet," which has to be "furnished" with contents; it is a *tabula rasa*, a blank sheet of paper, to be written upon.

Origin and Sorts of Ideas.[1] — The source of all our knowledge is experience. Ideas are first "gotten" by sensation "which is such an impression or motion, made in some part of the body, as produces some perception in the understanding." "The impulse made on the organ [say of sight] must be produced by some insensible particles coming from the object to the eyes; and by a continuation of that motion to the brain, ideas are produced in us." A "new set of ideas," which may be called "ideas of reflection," is produced by the mind's reflection upon its "operations about the ideas got by sensation." "In all that good extent wherein the mind wanders, in those remote speculations it may seem to be elevated with, it stirs not one jot beyond those ideas which sense or reflection have offered for its contemplation" (Bk. II. ch. i., § 23, 24). The impressions made on our senses by outward objects are wholly "extrinsical" to the mind, its own operations are "intrinsical" to

[1] Essay, Bk. II. ch. i.

it. The power to produce an idea in the mind by impression upon the senses is the *quality* of the "subject wherein that power is." Whiteness, coldness, roundness, regarded as "sensations or perceptions in the understanding" are called ideas; regarded as "powers" in a snowball to produce these ideas, are the qualities of the object. The qualities perceived in bodies are, — (1) such as are in the bodies themselves, are inseparable from them, whatever their state, produce ideas in us that are "resemblances" of the qualities themselves, and may be termed "original," or "primary" qualities, or (2) such as are not in bodies except in some mysterious and accidental manner, produce in us ideas that have no resemblance to the qualities themselves, and may therefore be termed secondary, or derived qualities. Secondary qualities are of two sorts: (1) such as produce ideas in us through the senses, and (2) such as produce changes in other bodies whereby they are caused to operate on our senses differently from what they did before. The primary qualities of bodies are solidity, extension, figure, number, motion, rest. Secondary qualities of the first-named sort are colors, smells, sounds, and tastes. The power the "sun has to make wax white," or "fire has to make lead fluid," are examples of the second-named class of secondary qualities. That "God should annex such ideas" (as those corresponding to secondary qualities) to motions with which they have no similitude, is "no more impossible to conceive . . . than that he should annex the idea of pain to the motion of a piece of steel dividing our flesh, with which that idea has no resemblance." Secondary qualities would have no existence were there not minds to be cognizant of them. — In themselves ideas may be classed as simple and complex. Of simple ideas some are got by sensation alone, some by sensation and reflection together, some by reflection alone. Some simple ideas belong to one sense only, as colors to sight, and heat, cold, and solidity to touch; others to more senses than one, as space, figure, rest, and motion to both sight and touch.

Our ideas of pleasure and pain, existence, unity, power, and succession we get from sensation and reflection united. Our ideas of perception, thinking, willing, knowledge, faith, etc., are given to us in reflection only. The simple idea is given to the mind when, in a merely "passive" state, and in clear and distinct perception, it "contains in itself one uniform appearance of mind, and is not distinguishable into different ideas." As the mind is passive in relation to simple ideas, it is "not in the power of the most exalted wit or enlarged understanding, by any quickness or variety of thought, to invent or frame one new simple idea in the mind, not taken in by the ways before-mentioned, nor can any force of understanding destroy those that are there: the dominion of man in this little world of his own understanding, being much what the same as it is in the great world of visible things, wherein his power, however managed by art and skill, reaches no farther than to compound and divide the materials that are made to his hand, but can do nothing towards making the least particle of new matter, or destroying one atom of what is already in being." In an active relation to its ideas, the mind may by repeating, comparing, uniting simple ideas produce to "almost infinite variety," "complex ideas," examples of which are space, time, number, substance, cause. — Complex ideas may be classed as ideas of modes, of substances, and of relations. The idea of the mode "contains the supposition of a thing subsisting in dependence on another: the idea of the substance contains no such supposition." Modes are either "simple," which are "variations or different combinations of the same simple idea" (*e.g.*, dozen or a score), or "mixed, which are compounds" of simple modes of various kinds (*e.g.*, beauty, "which is a compound of color and figure causing delight in the beholder"). The "mixed modes" do not correspond to any real existence, but are "scattered and independent" ideas "put together" by the mind, the unity of the mode consisting solely in an "act of the mind." Mixed modes are

constantly changing with custom and opinion. Substances are single or collective; examples of the latter-named sort are "army," "lead."

Ideas of Modes. — Space as mere extension is a "simple idea." It must not be confounded with body (as was done by the Cartesians), since it is not solid, and its parts are immovable and inseparable. Modes of space are distance (including figure and place) and capacity. The fact that the power of "enlarging" our idea of space remains constant how many soever "additions" we may make, suggests to us the idea of infinite space, which, however, is not a positive idea. The same is true of the idea of time. (If we could "enlarge" other ideas as easily as we can those of space and time, we could more readily than we now can join the idea of the infinite with them.) Number is a "complex idea" (though a simple mode), which is given to us in all our experiences. Pleasure and pain are simple ideas indescribable, indefinable, and known only as experienced. They constitute the criteria of good and evil (moral and physical). Pleasure and pain are the primary constituents of all our passions. "Happiness in its full extent is the utmost pleasure we are capable of; misery the utmost pain; the lowest degree of what may be called happiness is so much ease from all pain, and so much present pleasure as without which any one cannot be content" (Bk. II. ch. xxi.). Modes of pleasure and pain are: love, or the idea of the delight which any present or absent object is apt to produce; hatred, or the "idea of the pain any present or absent object is apt to produce; desire, or the uneasiness a man finds in himself upon the absence of anything whose present enjoyment carries the idea of delight with it;" joy, sorrow, hope, fear, despair, anger, envy. The idea of "power" is a simple idea produced in us by the fact that the mind, being "every day informed by the senses of this alteration of these simple ideas it observes in things without, and taking notice how one comes to an end, or ceases to be, and another begins to exist which was not before, re-

flecting also on what passes within itself, and observing a constant change in its ideas, sometimes by the impression of outward objects on the senses, and sometimes by the determination of its own choice, and concluding from what it has constantly observed to have been, that the like changes will for the future be made in the same things by like agents and by like ways, considers in one thing the possibility of having its ideas changed, and in another the possibility of making that change." We get our clearest idea of power from our own minds, — from our ability to "begin or forbear," "continue or end," etc. The actual exercise of power in us (or will) is volition, — one of the "simple ideas of reflection." Volition must not be confounded with desire. Desire is that "uneasiness" by which alone the will is "determined;" volition the act of the determined will. But will may "suspend the prosecution of desire" ("as every one daily may experiment upon himself"). This power in the will is the real "source of all liberty" and of "that which is (as I think improperly) called *free will*." Properly speaking, the man himself, and not the will, must be said to be free or not free.

Ideas of Substances. — Locke's account of the origin of the "ideas of substances" (or independent beings) is as follows: "The mind being, as I have declared, furnished with a great number of simple ideas, conveyed in by the senses as they are found in exterior things, or by reflection on its own operations, takes notice also that a certain number of those simple ideas go constantly together; which being presumed to belong to one thing, and words suited to common apprehensions and made use of for quick despatch, are called, so united in one subject, by one name; which by inadvertency we are apt afterwards to talk of, and consider as one simple idea, which indeed is a complication of many ideas together, — because, as I have said, not imagining how these simple ideas can subsist by themselves, we accustom ourselves to suppose some substratum wherein they do subsist and from which they do result; which

therefore we call substances. So that if any one will examine himself concerning his notions of pure substance in general, he will find he has no other idea of it at all but only a supposition of he knows not what support of such qualities which are capable of producing ideas in us; which qualities are commonly called accidents." A principal ingredient of our complex ideas of substances is the idea of power, since the qualities of substances are dependent upon and rest in the substances themselves. The ideas of the primary qualities are necessary ingredients, and if we knew the relation of secondary to primary qualities,— *i. e.*, could reduce them to terms of the primary, — our ideas of substances would be fundamental and complete. Unfortunately, they are not now: in fact, it is "very evident: (1) That all our ideas of the several sorts of substances [God, ourselves, and the things constituting the world] are nothing but collections of simple ideas with a supposition of something to which they belong, and in which they subsist; though of this supposed something we have no clear idea at all. (2) That all the simple ideas that thus united in one common substratum make up our complex ideas of the several sorts of substances are no other but such as we have received from sensation or reflection. So that even in those which we think we are most intimately acquainted with, and that come nearest the comprehension of our most enlarged conceptions, we cannot go beyond these simple ideas. And even in those which seem most remote from all we have to do with, and do infinitely surpass anything we can perceive in ourselves by reflection or discover by sensation in other things, we can attain to nothing but those simple ideas which we originally received from sensation or reflection, as is evident in the complex idea of angels, and particularly of God himself. (3) That most of the simple ideas that make up complex ideas of substances, when truly considered are only powers, however we are apt to take them for positive qualities; *e. g.*, the greatest part of the ideas that make our complex idea of gold, as yellow-

ness, weight, ductility, fusibility, and solubility in *aqua regia*, etc., are all united together in an unknown substratum: all which ideas are nothing else but so many relations to other substances, and are not really in the gold considered barely in itself, though they depend on those real primary qualities of its internal constitution whereby it has a fitness differently to operate and be operated on by several other substances" (Bk. II. ch. xxiii.). As has already been indicated, the primary qualities belonging to bodily substances alone are extension, solidity, mobility; to spiritual substances, perceptivity and motivity; to both, existence, duration, and number. We "frame" our idea of God by joining the idea of infinity to that of finite spiritual substance. God is infinite knowledge, power, existence, duration, and number [!?].

Ideas of Relations. — Ideas of relations are such as "father," which implies son or daughter; "cause," which implies effect; "identity," which implies diversity; and all moral conceptions, etc. Such ideas are derived "from the comparison of things one with another;" and imply the previous existence of simple ideas. There are as many such ideas, of course, as there are "occasions of comparing" things with one another. Relations are "extraneous to things themselves and superinduced." The ideas of cause and effect are produced as follows: "In the notice our senses take of the constant vicissitude of things we cannot but observe that several particular both qualities and substances begin to exist; and that they receive their existence from the due application and operation of some other being. . . . That which produces any simple or complex idea we denote by the general name cause; that which is produced effect." The ideas of cause and effect presuppose the idea of power. — The ideas of "identity and diversity" are formed "when, considering anything as existing at any determined time and place, we compare it with itself as existing at another time. When we see anything to be in any place in any instant of time,

we are sure (be it what it will) that it is that very thing and not another which at that same time exists in another place, how like and undistinguishable soever it may be in all other respects. The ***principium individuationis*** is existence itself, which determines a being of any sort to a particular time and place incommunicable to two beings of the same kind." As regards personal identity, Locke says: "Since consciousness always accompanies thinking, and 't is that that makes every one to be what he calls self, and thereby distinguishes himself from all other thinking beings, in this alone consists personal identity, *i. e.*, the sameness of a rational being; and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that person." We must distinguish between personal identity and the (supposed but perhaps not necessary) identity of substance in that which thinks. Moral ideas are ideas of relations of actions to rules; and "rules being nothing but a collection of several simple ideas, the conformity thereto is but so ordering an action that the simple ideas belonging to it may correspond to those which the law requires."

Adequateness in Ideas. — Locke discusses the distinction of ideas made by the "Cartesians" into clear and obscure, distinct and confused, adequate and inadequate. As regards the last-named distinction, he says that simple ideas must all be adequate, since, "being the effects of certain powers in things fitted and ordained by God to produce such sensations in us, they cannot but correspond and be adequate to those powers; and we are sure they agree to the reality of things;" that our "complex ideas of modes, being voluntary collections of simple ideas which the mind puts together without reference to any real archetypes or standing pattern existing anywhere, are and cannot but be adequate ideas." Our ideas of substances, considered either as the substratum or as the sum, of the known qualities, are necessarily inadequate, imperfect, since we have no positive idea of the substratum, and

cannot comprehend together the numerically infinite qualities.

Association of Ideas. — "Some of our ideas have a natural correspondence and connection with one another; it is the office and excellence of our reason to trace these and hold them together in that union and correspondence which is founded on their peculiar beings. Besides this there is another connection of ideas wholly owing to chance, — ideas that in themselves are not at all of kin, . . . always keep company. Their connection is made voluntarily or by chance. Custom settles habits of thinking. Ideas having at first a merely accidental connection, may become firmly united, because of strength of original impression or of 'future indulgence.' A man who receives a sensible injury from another is ever afterwards unable to dissociate the ideas of the two. A man has suffered pain or sickness in any place in space, and afterwards associates the place and the sickness. Time alone dissociates ideas thus united. The influence of this artificial association on the intellectual habits is sometimes unfortunate. Figure and shape, for example, are by custom associated in the child's mind with the idea of God. Some such wrong and unnatural combinations of ideas will be found to establish the irreconcilable opposition between different sects of philosophy and religion. This gives sense to jargon, demonstration to absurdities, consistency to nonsense, and is the foundation of the greatest, I had almost said, of all errors in the world" (Book II., chap. xxxiii.).

Words.[1] — Locke finds, when he has arrived at the end of the discussion of the "original sorts and extent of our ideas," that "there is so close a connection between ideas and words, and our abstract ideas and general words have so constant a relation one to another, that it is impossible to speak clearly and distinctly of our knowledge, which all consists in propositions, without considering first the nature, use, and signification of language;" that is to say,

[1] Book III. Mill speaks of this book as "immortal."

he interpolates a third task between the two main portions of his task as it first proposed itself to him. — Words are signs of our ideas about things, and of things themselves. The ends of language are the easy and rapid communication of ideas in themselves and of the knowledge of things. It is impossible, and it would be "useless," that every particular thing should have a distinct peculiar name, — useless, since so many names as there would necessarily be would overburden the memory, and necessary disagreement among men as to the names of the same things would defeat the end of discourse. General names are therefore, on this account, a practical necessity; and they are, furthermore, natural products of thought, generated by the act of abstraction. The general name represents the nominal (or externally conceived) essence of a thing, not its "real" essence or substratum of qualities; *i. e.*, the essence of the (abstract) species or genus, not of the individual. Names of simple ideas and substances "intimate real existence." Names of simple ideas and modes signify always both real and nominal essence. Names of simple ideas are indefinable. The principal abuses of words consist in the use of them without any clear ideas attached to them, the "unsteady application of them, the affected wrong application of them, the taking of them for things" (particularly in the case of substances). Words have their inherent limitations, however. The names of mixed modes are doubtful because the ideas they stand for are so complex and there is no standard in nature to refer them to. Names of substances are doubtful because they refer to a real essence that can not be known, and to coexisting qualities, which are known only limitedly. Less doubtful are the names of simple modes; least doubtful those of simple ideas.

Knowledge: its Nature and Kinds. — The subject of the joining together of ideas in propositions by means of words introduces that of the nature, kinds, degrees, and extent of knowledge. "Knowledge is the perception of the connec-

tion and agreement or disagreement and repugnancy of any of our ideas." Where this perception is wanting, we come short of knowledge, and attain only to probability at the most. There are four sorts of agreement; *viz.*, of identity, coexistence, relation, and real existence. "All the inquiries that we can make concerning any of our ideas, all that we can know or can affirm concerning any of them, is that it is or is not the same with some other; that it does or does not always coexist with some other idea in the same subject; that it has this or that relation to some other idea; or that it has a real existence without the mind." An example of an agreement of identity is, Blue is not yellow; of relation, Two triangles upon equal bases between two parallels are equal; of coexistence, Iron is susceptible of magnetical impressions; of real existence, "God is." With regard to the mode of presence of knowledge in the mind, — knowledge is actual or habitual, it being in the latter case merely "laid up," either "entire," or else without the proofs leading to it, in the memory.

Degrees of Knowledge. — As to the degrees of knowledge, — "when the mind perceives the agreement of two ideas immediately by themselves, without the intervention of any other," its knowledge is intuitive; when its perception is mediated by intervening ideas (termed proofs), its knowledge is called demonstrative. In default of intuition we have either belief (or opinion), the reality corresponding to which is the probable, or else a perception intermediate between opinion, on the one hand, and intuition and demonstration on the other; *viz.*, the perception of the particular existence of finite things. Intuition precludes all doubt either before or after it: it is present at every step of demonstrative or mediated knowledge. Demonstration may be preceded, but not accompanied nor followed, by doubt. Among the demonstrative sorts of knowledge may be included, not only mathematics (which, from the clearness and distinctness of its ideas and from

its usefulness has been deemed the only sort of demonstrative knowledge), but also morals.

Extent of Knowledge. — From the nature of knowledge as above defined it follows that (1) "we can have knowledge no further than we have ideas;" (2) "we can have no knowledge further than we can have perception of that agreement or disagreement;" (3) "we cannot have an intuitive knowledge that shall extend itself to all our ideas and all that we can know about them, because we cannot examine and perceive all the relations they have to one another by juxtaposition and immediate comparison one with another;" (4) "our *rational* (or demonstrative) knowledge cannot reach to the whole extent of our ideas, because between two different ideas we would examine we cannot always find such mediums as we can connect one to another with intuitive knowledge in all parts of the deduction; (5) scientific knowledge, reaching no farther than to the existence of things actually present to our senses, is yet much narrower than the former." As regards the kinds and degrees of knowledge, in their relations, the following observations may be made: (1) Our intuitive perception of identity and diversity is coextensive with our range of ideas. (2) Our knowledge of coexistence, "though in this perception consists the greatest and most material part of our knowledge concerning substances," which is a "weighty and considerable part of human science," is very limited, since the connection between most simple ideas, especially secondary qualities, is unknown, and the connection between secondary and primary qualities is undiscoverable. (3) Our knowledge of relations (conclusions) is of uncertain extent. The ideas of quantity (which are ideas of relations), however, are, as has been said, not the only ideas capable of demonstration. "The idea of a Supreme Being, infinite in power, goodness, and wisdom, whose workmanship we are, and on whom we depend, and the idea of ourselves as understanding beings, being such as are clear in us, would, I suppose, if duly considered and pursued, afford such foun-

dations of our duty and rules of action as might place morality amongst the sciences capable of demonstration, wherein I doubt not but from self-evident propositions by necessary consequences as incontestable as those in mathematics, the measures of right and wrong might be made out to any one that will apply himself with the same indifferency and attention to the one as he does to the other of those sciences. *Where there is no property, there is no injustice,* is a proposition as certain as any demonstration in Euclid; for, the idea of property being a 'right to anything,' and the idea to which injustice is given being the 'invasion or violation of that right,' it is evident that, these ideas being established, and these names being annexed to them, I can as certainly know this proposition to be true as that a triangle has three angles equal to two right angles." "Complexedness" and want of sensible demonstration as regards moral ideas have alone made demonstration seem impossible with reference to them. (4) We have an intuitive knowledge of our own existence, a demonstrative knowledge of the existence of God, and a "sensitive" knowledge of the existence of things. If any one be so foolish as to doubt his own existence, he is readily confuted by hunger, say, or any other pain. The existence of God follows certainly, for us, from the certainty of our own existence. "In the first place, nothing cannot produce any real being. Again, that which had its beginning and being from another must also have all that which is in and belongs to its being from another too. All the powers it has must be owing to and received from the same source. This eternal source of all being must be the source and original of all power, so this eternal being must be also the most powerful. We have then got one step farther; and we are certain now that there is not only some being, but some knowing, intelligent being in the world. There was a time, then, when there was no knowing being, and when knowledge began to be, or else there must have been also a knowing being from eternity. If it be said, there was a time when no being had

any knowledge, when that eternal being was void of all understanding, I reply that then it was impossible there should ever have been any knowledge, it being as impossible that things wholly void of knowledge and operating blindly, and without any perception, should produce a knowing being as it is impossible that a triangle should make itself three angles bigger than two right ones. For it is as repugnant to the idea of senseless matter that it should put into itself sense, perception, and knowledge, as it is repugnant to the idea of a triangle that it should put into itself greater angles than two right ones." Hence the existence of an "eternal, most powerful, and most knowing being, . . . which whether any one will please to call it God it matters not. . . . We have more certain knowledge of God than of anything our senses have not immediately discovered to us. Nay, I presume I may say that we more certainly know there is a God than there is anything else without us. . . . The knowledge of the existence of any other thing we can have only by sensation: for there being no necessary connection of real existence with any idea a man hath in his memory, nor of any other existence but that of God, with the existence of any particular man, no particular man can know the existence of any other being but only when by actually operating upon him it makes itself perceived by him. . . . It takes not from the certainty of our senses and the ideas we receive by them, that we know not the manner in which they are produced. . . . The notice we have by our senses of the existing things without us, though it be not altogether so certain as our intuitive knowledge or the deductions of our reason employed about the clear abstract ideas of our minds, yet it is an assurance that deserves the name of knowledge. . . . This is certain, that the confidence that our faculties do not herein deceive us, is the greatest assurance we are capable of concerning the existence of material beings. For we cannot act upon anything but by our faculties, nor talk of knowledge itself but by the help of those faculties which are fitted to apprehend even what knowledge is." A "concur-

rent reason" for the belief in the existence of external things is the following: "Those perceptions are produced by exterior causes affecting our senses," as is evident from these considerations: (1) those that want the organs of any sense can never have ideas belonging to that sense produced in their minds; (2) sometimes I find I cannot help having those ideas produced in my mind; (3) many of those ideas are produced in us with pain which we afterwards remember without the least offence; (4) our senses bear witness to the truth of each other's reports concerning the existence of sensible things without us.

"*Improvement of Knowledge.*" — Knowledge grows, not from supposed *a priori* "maxims" (of the Schoolmen), or axioms, nor by hasty hypotheses, but from "clear, distinct, complete ideas" given by experience. And since the "understanding faculties are given to man not barely for speculation, but also for the conduct of his life," our scientific knowledge is supplemented by the use of the faculty of judgment. "He that will not eat till he has demonstrated that it will nourish him, he that will not stir till he infallibly knows the business he goes about will succeed, will have little else to do but sit still and perish." By judgment we at least attain to "the twilight of probability" (or the "appearance of agreement upon fallible proofs") "suitable to the state of mediocrity and probationership in which we are placed." In other words, — "the faculty which God has given to man whereby to supply the want of clear certain knowledge in cases where it cannot be had, is *judgment*, whereby the mind takes its ideas to agree or disagree, or, which is the same, any proposition to be true or false without perceiving a demonstrative evidence in the proofs." The criteria of probability in ideas are (1) conformity to our knowledge, observation, and experience; (2) testimony of others; (3) the number of witnesses, their integrity and skill, and, in case of a written work, the design of the author, consistency of its parts, "circumstances of the relation," contrary testimonies. In things which sense cannot discover, analogy is the great rule of probability.

Reason. — The name of all probable truth, including even "revelation" and the faculty of natural knowledge in general, is reason. Reason has two parts: sagacity, or the faculty that "finds out" ideas, and "illation, a faculty concerned with intermediary ideas." There are four degrees in reason: "The first and highest is the discovery and finding out of proofs; the second, the regular and methodical disposition of them, and laying them in a clear and fit order to make their connection and force to be plainly and easily perceived; the third is the perceiving their connection; the fourth, making a right conclusion." Is the syllogism the "proper instrument" of it? The syllogism is useful merely for showing the connection of the proofs in any one instance, and no more; and it is of "no great use here, since the mind can perceive such connection where it really is, as easily, nay, perhaps better, without it. . . . Many men reason exceedingly clearly and rightly who know not how to make a syllogism;" and "scarce any one ever makes a syllogism on reasoning within himself. The syllogism is made use of on occasion to discover a fallacy hid in a rhetorical flourish, or cunningly wrapped up in a smooth period." "God has not been so sparing to men to make them barely two-legged creatures, and left it to Aristotle to make them rational. The Scholastic ways of reasoning are not less liable to fallacy than the plainer ways." The syllogism has no value whatever in matters of probability.

Reason and Faith. — Reason is contradistinguished from faith, or knowledge by revelation, as knowledge by our natural faculties. Revelation cannot be admitted against the clear evidence of reason: our natural intuitive and demonstrative knowledge is the most certain we have. No man inspired by God can by any revelation communicate to any other any new simple ideas, since the communication of a revelation is conditioned by the ordinary use of language. Revelation may discover and convey to us ideas which are discoverable to us by reason and the ideas we may naturally have. Things of whose past, present, or future exist-

ence we can by the natural use of our faculties have no knowledge at all, are, when revealed, the proper matter of faith.

Wrong Assent. — Wrong assent results from want of proofs, want of ability to use them, want of will to use them, from wrong measures of probability, from propositions that are not in themselves certain and clear, but doubtful and false, taken up for principles, from received hypotheses, predominant passions, authority.

Division of the Sciences. — There are three branches of human knowledge: Physics (*Physica*), Ethics (*Ethica*), Semiotics (*Semiotica*), or the Doctrine of Signs, — the first (whose end is merely "speculative truth") having to do with the nature of things as they are in themselves, their relations, and their manner of operation; the second, with that which man ought to do as a rational and voluntary agent for the attainment of any end, especially happiness; the third, with the ways and means by which the knowledge of both the one and the other of these is attained. From a short treatise by Locke on Natural Philosophy it appears that such investigations as we have thus far gone over — except those on Words — belong to Natural Philosophy (the last chapter of Locke's brief treatise just referred to, discussing in outline the Understanding of Man). To Natural Philosophy there belong, besides, the theory of matter and motion, and the visible universe in all its parts. Ethics embraces, besides the general principles of morality, the theory of Education, of the State, and of Religion.

Natural Philosophy. — Locke's Natural Philosophy is a mere sketch, in which the substance of the newest doctrines of his age in physical science is indicated, without much speculative interpretation or comment. All the phenomena of bodies are to be explained "by the figure, bulk, texture, and motion of small and insensible corpuscles, *i. e.*, atoms," from the combinations of which arise "moleculæ" and "bigger bodies," and thus the whole material world is formed. The origin of the sensible phenomena as sen-

sations and perceptions is due to motion affecting organs of sense, and propagated by animal spirits through the nerves to the brain. The five senses and memory belong to animals as well as men. Man has higher faculties, separating him to some extent from the brute.

Morality. — Locke's theory of morality, which is contained in fragmentary statements and in suggestions scattered throughout his psychological and epistemological investigations (contained in the "Essay concerning Human Understanding"), may be very briefly stated as follows: Morality is the agreement of action with certain rules acknowledged as the will of God. Without belief in a God, who is omniscient and "has in his hands rewards and punishments, and power enough to call to account the proudest offender," no morality. ("Freedom of will," or rather of the man, which Locke admits in the later editions of the "Essay," plays no part in his moral theory.) The rule of action is to be found in public happiness, the means to which we have to ascertain merely by use of the natural reason; the method of knowledge in morality being essentially the same as the method in mathematics.

Education. — The keynote of Locke's educational theories, which have become celebrated in the history of educational doctrine, is contained in the ancient aphorism, *Mens sana in corpore sano.* He insists strongly on beginning education at the earliest possible period in the life of the child, since it is in this matter "as in the fountains of some rivers, where a gentle application of the hand turns the flexible waters into channels that take quite contrary courses." All "cockering and tenderness" in the treatment of the child's physical nature, except perhaps in the matter of sleep in the case of the young child, are forbidden by Locke. He would even have children inured to running about with wet feet, and sleeping on hard, disagreeable beds. The moral and intellectual education of the child must have for its ends "virtue," or rational control of passion and appetite, wisdom, or power to "manage one's business ably

and with foresight in this world," "good breeding," or agreeable manners, and last (and least), learning. Locke's theory of discipline to virtue is rather stern, though not intentionally unkind: corporal punishment is to be reserved for cases of obstinacy, and in its stead appeals to the child's sense of honor ("reputation") and shame are to be employed. Further, "he that will have his son have respect for him and his orders, must himself have great reverence for his son:" a child whose "spirit" has been broken is even a less worthy product of discipline than a "disorderly fellow," who knows no such thing as obedience. Instruction by example rather than precept and for practical rather than intellectual ends is Locke's ideal of instruction. Hence his advocacy of placing the child in the hands of a private tutor (instead of in the public schools). The tutor is to "fashion the carriage and form of the child's mind, to settle good habits and the principles of virtue and wisdom, to give him by little and little a view of mankind, and work him into a love and imitation of what is excellent and praiseworthy, and in the prosecution of it to give him vigor, activity, and industry," — merely opening the door to the purely intellectual accomplishments which make a "man a critic, orator, logician, metaphysician, natural philosopher, mathematician, or master in history and chronology:" of "good breeding, knowledge of the world, virtue, industry, and a love of reputation, the child cannot have too much; and if he have these, he will not long want what he needs or desires of the other." (Locke's programme of branches of study to be pursued by youth is, — Arithmetic, Geography, Grammar, Rhetoric, Chronology, History, Geometry, Astronomy, Natural Philosophy, French, Latin, — minus Latin Composition, — Ethics, Civil and Common Law, and a manual trade, — "nay, two or three.") In the "Conduct of the Understanding" we have a substitute for mere Scholastic logicism, an attempt to show how intellectual independence and grasp are to be acquired. The pattern of intellectual method for all knowledge is the mathematical

method. Intellectual discipline has especially to obviate the habits of "taking ideas too much on the authority of others, and of putting passions in the place of thoughts," also a want "of a large roundabout sense." Locke discusses in the "Conduct of the Understanding" a great variety of educational topics, among which occur the following: the necessity of having a store of "moral and abstract ideas as a foundation for proper employment of the reason;" critical examination of one's opinions, and the avoidance of prejudice; impartiality of intellectual disposition; observation; mental bias; "hunting after arguments" for special pleading; haste, desultoriness, smattering; aiming at universality in acquisition; reading; the possession of intermediate principles; avoiding partiality for certain branches of study; classes of opinion, — as mathematics, ancient opinions, heterodox opinions; anticipation; surrendering of one's judgment; wandering of the thoughts; perseverance; presumption; despondency on first encountering difficulty; association of ideas; fallacies. It is perhaps needless to remark that the discussion presupposes to a considerable extent the investigations of the "Essay Concerning Human Understanding," as, indeed, the "Conduct of the Understanding" was at first intended as a chapter to be added to the "Essay."

Politics. — Locke's political doctrines (framed with particular reference to the well-known political crisis that took place in England in the last quarter of the seventeenth century) constitute a theory of a constitutional monarchy. "Political power I take to be a right of making laws with penalties of death, consequently all less penalties, for the regulating and preserving of property [*i. e.*, "lives, liberty, and estates"], and of employing the force of the community in the execution of such laws, and in the defence of the Commonwealth from foreign injury, and all this only for the public good." A full understanding of political right depends on a consideration of "what state all men are naturally in, and that

is a state of perfect freedom to order their actions, and dispose of their possessions and persons, as they think fit, within the bounds of the law of nature, without asking leave or depending on the will of any man;" it is a "state of equality, wherein all power and jurisdiction is reciprocal, none having more power than another;" a state, however, in which "every man hath a right to punish the offender and be the executioner of the law of nature, a state of peace, goodwill, mutual assistance, preservation." This state ceases to exist by the fact that one man tries to obtain absolute power over another: a state of enmity, malice, violence, mutual destruction — in short, a state of war — ensues, in which power rests on mere force. The intolerableness of such a state makes civil government a necessity, the chief end of which is the maintenance of the right of property, or the right to life, liberty, and possessions. Property is measured by the "extent of men's labor and the convenience of life." Within the state is the family, the chief end of which is the procreation and bringing to the age of reason of children. During nonage the child owes to the parent obedience, afterwards honor merely. The husband is the natural head of the family, as "being the abler and stronger." The power of husband and father is far from absolute. In case of absolute disagreement between husband and wife there may be an appeal to the law of the community. Political society exists "there and there only . . . where every one of the members hath quitted his natural power, resigned it up into the hands of the community in all cases that exclude him not from appealing for protection to the law established by it. One who resigns his natural power thereby authorizes the society, or which is all one, the legislative thereof, to make laws for him, as the public good of the society shall require; to the execution whereof his own assistance, as to his own decrees, is due." An absolute monarchy is not a true civil society, since the absolute monarch does not resign his natural power: absolute monarchy is a "state of nature." Now, in a state of

nature there is wanting established, settled, and known law, a known and indifferent judge, "power to back and support the sentence of the judge when right, and to give it due execution." The possible forms of government, dependent upon the placing of the powers, are pure democracy, oligarchy, monarchy, hereditary or elective, and commonwealth, in which last the legislative power is the supreme power. The legislative power in the commonwealth, though supreme, has not absolute authority over the lives and fortunes of the people; it has, for example, no right to make arbitrary decrees, it cannot take from any man any part of his property without his own consent, it cannot transfer its function of making laws into any other hands. The supremacy held by the legislative power passes in a certain manner, however, over to the executive, in as much as the executive must have authority (especially as the legislative body does not always sit) to act according to discretion for the public good, without the prescription of law, and sometimes even against it. In the last resort, the really supreme power of the state is with the people, who alone can alter the legislative and so determine the form of government. In relation to other states, the commonwealth is in a state of nature, and has among its powers what may be called a federative power. In case of conquest, he who conquers acquires no power over those "who conquered with him, acquires power only over those who have actually assisted, concurred, or consented to that unjust force that is used against him, and has over those conquered in a just war, a power perfectly despotical." Tyranny is power exercised beyond right. Governments are overturned from without, by conquest, and from within, by the alteration of the legislative power, and by unfaithfulness of legislature and prince to their respective trusts.

Religion. — Regarding Locke's doctrine of religion, it may be added to what has already been stated (page 152) concerning reason and revelation, that Locke advocated what he supposed to be a "*rational*" Christianity. Such

a doctrine was based on a literal interpretation of the New Testament according to the principles of his doctrine of knowledge and probability; it was natural religion, supplemented by the sanctions of the pure life of Christ, and the revelation through him of the altogether reasonable hypotheses of immortality and future rewards and punishments. Locke advocated religious toleration for all classes of persons except pronounced atheists.

Result. — Locke, it is scarcely necessary to say, is an empiricist; consistently speaking, he ought also to be described as a subjective idealist, for if knowledge is merely the perception of the agreement or disagreement among ideas, and ideas all originate, directly or indirectly, in sensation, the mind contributing nothing to objectify ideas, it seems impossible to get, by knowledge, beyond the individual subject with its ideas. Locke did not himself draw the full consequences of his doctrine, but maintained the existence of a (quasi-) objective apprehension of mind, the external world, and God. On the principles of his empiricism it was possible for any one coming after him to deny, regarding any one or even all of these, that we have knowledge of it or them. Such denial occurred. The influence of Locke in modern philosophy has, as we shall see, been very great. — We take up next the critics and defenders of Locke's doctrines in his own country and age.

§ 60.

Critics and Defenders of Locke.[1] — The doctrines of Locke provoked exceptions from a number of thinkers (upwards of a dozen, at least), the most important of whom are, perhaps, Edward Stillingfleet, Bishop of Worcester (1635–1699), Richard Burthogge, M.D. (d. 1694), John Sergeant (1621–1707), Henry Lee, B.D., Peter Browne, Bishop of Cork (d. 1735), Zachary Mayne (d. 1750).

[1] See Dr. Porter's "Philosophy in Great Britain and America" (printed with Morris's translation of Ueberweg's "History of Philosophy"); Noack; etc.

— Stillingfleet's exceptions relate to most of the cardinal features of the doctrine of Locke: the polemic against innate ideas, the merely twofold source of knowledge, the unknowability of substance and identity of subject or object, the meaning of the term "idea," etc.; Stillingfleet's attitude being that of a defender of traditional orthodoxy in religion, *i. e.*, of a revelationist. — Burthogge, in an essay on Reason and the Nature of Spirits, substitutes for the Lockean representationism, or doctrine of ideas representing unknown objects, a doctrine of pure phenomenism, asserting that "things are nothing to us but as they are known to us," — a doctrine which (as Dr. Porter points out) "anticipates one of the most important positions of Kant's philosophical system, known also as Hamilton's doctrine of the relativity of knowledge." — Sergeant criticises Locke's use of the term "idea" to signify "whatever is before the understanding when one thinks," and limits the term to objects of sense or of sensuous imagination. He then affirms that by the understanding we cognize directly things as they are in themselves. The title of Sergeant's work is "Method to Science: Solid Philosophy asserted against the Fancies of the Ideists" (1697). — Lee, who wrote "the most elaborate and extended critical reply to Locke's 'Essay,'" defends the doctrine of innate ideas (though not in the sense in which Locke denied it), denies, of course, that sensation and reflection are the only sources of knowledge, and denies that there are simple ideas which must be "gained before the mind receives the knowledge of things by perceiving the agreement or disagreement of such ideas," etc. The title of Lee's work is, "Anti-Scepticism; or, Notes upon each Chapter of Mr. Locke's 'Essay Concerning Human Understanding,' with an Explication of all the Particulars of which he treats, and in the same order with Locke" (1702). — According to Browne, all knowledge depends upon "simple perceptions of sense," and there is no knowledge of the supersensible. Knowledge is immediate or mediate. Immediate knowledge comprises the single perceptions of

sense, which are ideas of external objects, and simple apprehension of the intellect (or in the present terminology, "self-consciousness"). The simple apprehension of the intellect is knowledge without ideas; it is perfectly direct (and hence the term "idea" has meaning only in relation to sense-perception). But the apprehension does not occur apart from the consciousness of external objects. Mediate knowledge is either demonstrative certainty, moral certainty, certainty based upon sight, or certainty based on evidence. Our notions of the supersensible are derived from an analogical extension of the application of sensible ideas. Browne's works of importance in this connection are, "The Procedure, Extent, and Limits of Human Understanding" (1729), and "Things Divine and Supernatural conceived by Analogy with Things Human" (1733). — Mayne, who published anonymously a work entitled "Two Dissertations Concerning Sense and Imagination, with an Essay on Consciousness" (1727), — unless, indeed, this work be a work of Browne's,[1] — distinguishes from sense and imagination, which he declares to be non-intellectual in character, the understanding as the sole faculty of conceptions. He "distinctly recognizes the functions of consciousness and self-consciousness as they have been subsequently developed by the schools of Reid and Hamilton."[2] — Locke's views were defended by Vincent Perronet, Samuel Bold, and Mrs. Catherine Cockburn.

§ 61.

English Deism.[3] — Owing largely to the influence of Locke's teaching, but partly also to that of the teachings of Lord Cherbury and Hobbes, there appeared conspicuously in England about the beginning of the eighteenth century a certain phase of philosophical thought, hardly characterized by any definiteness or identity of particular doctrines among different thinkers, which is known as Eng-

[1] See Noack, and Franck, under Browne. [2] Porter.
[3] English Thought in the Eighteenth Century, by Leslie Stephen.

lish Deism. It was in general a denial of supernaturalism in religion and morals, together with the (complementary) assertion of the inherent truth and sufficiency of reason, or common-sense, in religion and morals. We may take as perhaps the most important of the Deists, John Toland (1689–1722), Anthony Collins (1676–1729), Matthew Tindal (1657–1733), Thomas Chubb (1677–1747), Henry St. John, Lord Bolingbroke (1698–1751). — Toland, in a work entitled "Christianity not Mysterious" (1st ed., 1696, 3d ed., 1702), maintains that all things have their real foundation in reason alone, and that, consequently, the only legitimate ground of assent is reason or demonstration, and that whenever this is wanting, suspension of judgment is the only proper attitude of mind. True Christianity cannot be mysterious in the sense of being "above all reason;" and no alleged revelation which does not show the "indisputable character of divine wisdom and sound reason" deserves acceptance. By "reason," Toland, who is a professed Lockean, means what Locke means by "knowledge" when he defines it as "the perception of the agreement or disagreement among ideas." — Collins, a personal friend and acknowledged disciple of Locke, wrote a work entitled a "Discourse of Freethinking" (1713), in which he maintained the necessity of free thought as an instrument of truth and human welfare, and a work entitled "Inquiry Concerning Human Liberty" (1715), defending the (Hobbean) doctrine of necessitarianism. Among Collins's arguments upon freethinking occur the two, — (1) that thought cannot in reality be limited, since it would be only by a reason or thought which should show that it is not permitted to think on a subject on which one may wish to think; and (2) the limiting of thought takes away the only means of arriving at the truth, — especially in religion. Collins admits liberty (with Locke and Hobbes) in the sense of a power to do as one wills or pleases, but denies it of man in any other sense, and for the following reasons (among others): When two contrary objects of choice are presented

to us, we are not able to choose either; our choice is at bottom only a practical judgment that one thing is better than another; and as all judgment is necessary, so must all choice be; even in actions which appear the most indifferent our choice is determined by a multitude of causes, as temperament, habitude, prejudice, etc.; our belief in freedom is in part a consequence of our inability to give an account of the motives determining the will. In a "Letter to Mr. Dodwell," Collins, following out a suggestion contained in the "Essay Concerning Human Understanding" (to the effect that God might have endowed matter with the capacity to think), maintains that the soul might be a resultant of the activities of thinking particles composing the body, and would not therefore be in itself capable of immortality. — Tindal, perhaps the most important of the Deists, wrote a work entitled "Christianity as Old as Creation" (1732), which received the appellation of the "Bible of the Deists." It is very much in the line of the Lockean thought upon the subject with which it deals. So-called "revealed religion teaches nothing," says Tindal, "which nature, or reason, has not always taught, could teach nothing that would not have to be tested by the standards of reason." Human nature is a fixed quantity, and what it apprehends is apprehended by all alike. "The attempt to destroy reason by reason is a demonstration that men have nothing but reason to trust to." — Chubb (a tallow-chandler and a self-taught scholar) held that the accountability of man is a guaranty of the possession by him of a capacity to discern and fulfil his responsibilities, and that religion has for its content nothing not revealed in nature; that Christianity is not mere intellectual adherence to dogma, but life according to the nature of things. Chubb's principal works are: "A Discourse Concerning Reason" (1731), "The True Gospel of Jesus Christ" (1739), "The Author's Farewell to his Readers" (1748). — With Bolingbroke, Deism passes into Scepticism: Bolingbroke, though a professed theist, affirms the uncertainty of all science. — English Deism, as

will hereafter appear, has exerted a powerful influence in modern philosophizing since its day.

§ 62.

George Berkeley[1] (1685–1753). — Berkeley, though of English descent, was born in Ireland, in the county of Kilkenny. He early displayed a peculiar inquisitiveness of temper and a habitual enthusiasm for pure ideas, — decided intellectual precocity; also a love of nature, and the possession of a quick eye for its phenomena. He was educated first at Kilkenny school, and then at Trinity College, Dublin, where in 1702 he received the degree of B. A., in 1704 that of M. A., and in 1707 an appointment as fellow, tutor, Greek lecturer, etc. During his college course he manifested the deepest interest in the physical and metaphysical speculations of his age, *viz.*, those of Descartes, Malebranche, Locke, Newton; and was greatly interested in the making of certain original investigations in the field of metaphysics. Not long after his graduation two of his principal works were published. In 1713 Berkeley removed to London. The next ten years of his life were filled with social and intellectual intercourse with the chief literary luminaries of England, — Steele, Swift, Addison, Pope, and others, — travelling on the Continent, and philosophical reflection and writing. As early as 1724 he had projected the philanthropical enterprise of founding a university in the Bermudas for the education of English-speaking youths, and savages, there. Three years were spent by him in meditative retirement in Rhode Island, awaiting the action of Parliament in relation to a promised grant of funds for the founding of the proposed university. The scheme failed, and Berkeley returned to Ireland. Made bishop of Cloyne in 1734, he lived in philosophical seclusion, studying ancient thinkers, and developing his own early-discovered philosophical principle on its higher side, until 1752, when

[1] See "Berkeley," by Professor Fraser ("Blackwood's Philosophical Classics"); "Selections from Berkeley," by Professor Fraser; etc.

he moved to Oxford, where a son was studying, to spend the remainder of his days. He died suddenly in January of the following year.

Works. — Berkeley's principal works are: "An Essay towards a New Theory of Vision" (1709), "The Principles of Human Knowledge" (1710), "Hylas and Philonoüs, or Dialogues" (1713), "Alciphron, or the Minute Philosopher" (1733), "Siris: a Chain of Philosophical Reflections and Inquiries concerning Tar-Water," etc. (1744). The first two of these set forth his principle in its earliest form; the third is taken up with the refutation of objections to his doctrine; the fourth, with a somewhat transitional phase of his thought; and the last, with the exposition of his thought in its maturest form. We may mention also the "Common-Place Book."

Philosophy. — The starting-point of Berkeley's philosophizing is to be found in a class of queries suggested, it would seem, by the following passage of Locke's "Essay" (book ii., ch. iv., § 8): "The ideas we receive by sensation are often in grown people altered by judgment without our taking notice of it. When we set before our eyes a round globe of any uniform color, *e.g.*, gold, alabaster, or jet, it is certain that the idea thereby imprinted on our minds is of a flat circle variously shadowed, with several degrees of light and brightness coming to our eyes, etc. But we have, by use, been accustomed to perceive what kind of appearances convex bodies are wont to make in us, what alterations are made in the reflections of light by the differences in the sensible figures of bodies, and the judgment presently, by an habitual custom, alters the appearances into their causes, etc." To the query (also to be found in Locke) "whether a man born blind and then made to see would at first give the name distance to any idea (object of consciousness) intromitted by sight," Berkeley's answer is that he would "take distance that he had perceived by touch to be something existing without his mind, but would certainly think nothing seen was without his mind." He would come

to perceive distance by sight only as he learned to interpret visual impressions by impressions of touch and bodily movement. By experience he would become able to "perceive" distance at once by sight; every visual impression would instantaneously receive an interpretation in the language of touch and movement. But, this being the case, all vision would, in a very important sense, be prevision; visual perceptions are, unconsciously to ourselves, created for us beforehand by experience; and every idea or object of (visual) consciousness would presuppose a subject of consciousness or mind. What is true of vision is true of all forms of sensible experience. Why the sensations of one sense thus receive interpretation in the language of another, and why certain impressions of different senses are uniformly conjoined to constitute the idea of a fixed object, we do not know, any more than we know why words in English, Greek, or any other language have the significations they have for us. Certain it is that we find in experience ideas or objects existing in regular coexistence and succession, or in an order, — which order we know, from the manner in which we get these ideas and from the fact that they form an order, to be inseparable from mind. Such being the case, the traditional notions of matter, substance, and the like, which suppose a real existence apart from mind, are "empty metaphysical abstractions," a "dust raised by metaphysicians that prevents their seeing clearly." The notion of matter is self-contradictory: "matter" is something that is not, and yet at the same time *is* for consciousness, since we cannot attach any meaning to the term "matter" without giving matter an existence for the mind, or "bringing it within the mind." The very being of all objects for us consists in the "being perceived and known." What does not exist in *my* mind or that of any other mind or spirit, finite or infinite, cannot have existence. The self-contradiction inherent in the notion of ~~matter~~ does not appertain to that of spiritual substance. The words *I* and *you* have certain intelligible meanings which warrant our speaking of spiritual beings,

though they be not exactly phenomenal. "I know and am conscious of my own being, and that I myself am not my ideas, but am somewhat else, — a thinking, active principle that perceives, knows, wills, and operates about ideas. . . . I am not, in like manner, conscious of the existence and essence of matter. On the contrary, I know that nothing inconsistent can exist, and that the existence of matter implies an inconsistency." We know, then, only that which is itself mind, or inseparable from, and object to, mind. The "ideas or phenomena of which things are composed are not modifications of the mind to which they are presented, but are, on the contrary, perceptions, dependent presentations exhibited under laws of nature in individual minds. Still more it must be remembered that phenomenal things need not be composed only of the phenomena presented to the five senses. Phenomena of innumerable sorts which do not appear in human sense-experience may form a part of the experience of other sentient spirits. . . . Further, Berkeley's immaterialism assumes the possibility of our having phenomenal experience and perceptions of phenomenal things in a disembodied as well as in this embodied state of conscious life" (Fraser). In reply to the objection that, if the nature of things consists in their being perceived, there can be no things as such, since the ideas of no two persons are identical, it may (besides other things) be said that we must make a distinction between the phenomenal and hyperphenomenal. What we know through the senses merely, partakes of the nature of sense: we *sensibly perceive* only the *sensibly perceptible;* but the real nature of ideas and objects is not therefore beyond the "limits" of mind, because we do not *sensibly* perceive it: it exists as an archetype in the Eternal Mind, hence by hypothesis is not to be known in its absolute identity by sense-perception. As to the relation between the phenomenal and the hyperphenomenal worlds, it is a vulgar mistake to suppose the latter outside mind. We are directly conscious of ourselves individually as thought and will, and we interpret the (phe-

nomenal) actions and words of others as signs of thought and will in them. In like manner, we may interpret phenomena generally as signs of eternal thought and will, as manifestations of eternal mind: we in fact daily see, hear, and know God, if our spiritual faculties are open, together with our senses. From the foregoing it seems to follow that there are among phenomena no real causes: real causes are hyperphenomenal, — God, or finite spirits. Purely mechanical philosophy knows not true causes, but rather mere signs and things signified, forming, as it were, a "rational discourse," evincing by the regularity of connection between sign and thing signified an intelligent primal cause. It is concerned merely with phenomena and their laws, which are but the rules of the operation of spirit. These rules constitute a grammar to the understanding of nature and the prevision of effects. It is not, however, a rational necessity that the rules should always remain the same, though it be a rational necessity that there be rules. The phenomenal world is a world in which "reason is immersed in matter," and intellect is merely latent in sense: it is a world of "blemishes and defects" (which, however, "have a use, in that they make an agreeable sort of variety, and augment the beauty of the rest of creation, as shades in a picture serve to set off the brighter and more enlightened parts"). Pure reason is pure causality. It is not known by means of the grammar of the understanding, but only in moral and spiritual intuition and trust. "There is no sense nor sensory, nor anything like sense or sensory, in God. Sense implies an impression from some other being, and denotes a dependence in the soul that hath it. Sense is a passion [passivity], and passions imply imperfection. God knoweth all things as pure mind or intellect; but nothing by sense, nor in nor through a sensory." — The two great principles of morality are the being of God and the freedom of man.

Result. — Locke, we saw, left the external world (matter), the self, and God in the doubtful position of being only

(quasi-) knowable: Berkeley, we have just seen, drops matter, as an irrational notion. By so doing, he begins the development of the Lockean doctrine towards its legitimate result. — Berkeley is a pure idealist, and one of the very few empiricists who have been so. His idealism is, however, at least in its best-known form, as a factor in the history of philosophy, only an empirical idealism.

§ 63.

English Moralists. — The several next following thinkers, including Hume (who, however, has an independent position in the history of philosophy) are commonly known as the English Moralists of the Eighteenth Century. They are (besides Hume) Shaftesbury, Hutcheson, Butler, Clarke, Price, Adam Smith, Paley. They are perhaps more important in the history of thought than in themselves regarded, though not insignificant in this respect.

§ 64.

Anthony Cooper, Earl of Shaftesbury[1] (1671–1713). — Shaftesbury, who was grandson of the celebrated statesman of the same title, was educated by a private tutor, acting under Locke's direction, at a private school, and at the Grammar School of Winchester. His education was supplemented by several years' travel on the Continent, which gave a cosmopolitan flavor to his thinking. He was possessed by an ardent liking for the ancient classics, and became so fully imbued with the thought and spirit of them that he never afterwards could accommodate himself fully to the modern "Christian" temper and view of things. He succeeded his father, the second Earl of Shaftesbury, as a (Whig) member of the House of Lords. On account of ill-health he was obliged, after a few years in Parliament, to retire to private life. He made visits to Holland and Italy on account of ill-health. Personally Shaftesbury

[1] See "Shaftesbury," by Thomas Fowler, M.A., LL.D. ("English Philosophers Series"); Shaftesbury's "Characteristics."

was characterized by a spirit of benevolence which, it is said, practically benefited not a few people. He was particularly fond of stimulating and assisting ambitious, intelligent young men. He was of a religious temperament, but no believer in dogmas. He is known, however, to have had little sympathy with the Deistic movement.

Works. — Shaftesbury's works are "Characteristics of Men, Manners, Opinion, Times" (1711), a collection of essays (*some* of which are not strictly philosophical) on various topics; "Letters written by a Nobleman to a Young Man at the University." His ethical views are to be found chiefly in an essay (among those of the "Characteristics") entitled an "Inquiry concerning Virtue and Merit." The essay "The Moralists, a Philosophical Rhapsody," contains his metaphysical doctrines.

Philosophy. — The motive impulse of Shaftesbury's thinking is to be found, like that of the Cambridge Platonists (whom he seems to have esteemed), in hostility to the views of Hobbes and the dogmatic theologians.

Metaphysics: God. — Shaftesbury professedly detests technical "metaphysics" and "system-making." The metaphysicians, he says, by their attempt to demonstrate everything, "renounce daylight and extinguish, in a manner, the bright, visible, outside world." "The most ingenious way of becoming foolish is by a system. True philosophy is the study of happiness." One need "know only so much metaphysics as will teach him that there is nothing in it." But Shaftesbury has, nevertheless, his metaphysics, and talks not a little about "system." He regards virtue as a sort of harmony with the "universal system" of things, and the good as happiness, — all things working together for the best. From what he terms the "mutual dependency of things," the "order, union, and coherence of the whole," the universal system, "the coherent scheme of things," he infers the existence of a universal mind, a wise and benevolent God. He combats the Lockean notion that matter could (by God) have

been made to think or produce thought, and finds in the superiority of thought to matter evidence of the eternity of thought. God is related to the world as the soul to the body; he directs and manages all the operations of nature as the soul does those of the body.

Ethics: Moral Beauty (*Virtue*). — That harmony which characterizes the "universal system" as such appears also in man, in himself, and "his relations to the world." In himself, in the sum of his thoughts and affections, he is like a musical instrument, no one of the strings of which can be overstrained without damage to the instrument as a whole. As a part of the universal human whole, he is good only as he acts for the public good, is possessed by the spirit of benevolence. As a sort of harmony, virtue is a species of beauty: it is moral beauty, or beauty of action and characters, instead of mere objects. Moral beauty is not an object or product of reason, nor is it a merely conventional thing. It is an object and product of a faculty of "taste," a moral sense. The moral sense is as natural to us as the faculty of feeling itself. Its operation is immediate, and when the sense is educated, decisive: what *is* good, *presents* itself to it at once as the "amiable and the agreeable, and hence right." The criterion of right and wrong is, in general, the public good: to love the public, "to study universal good, and to promote the interest of the whole world as far as lies within our power, is surely the height of goodness, and makes that temper which we call divine." On the other hand, "since it is impossible that the public good, or good of the system, can be preserved without the affection towards private good, a creature wanting in these is in reality wanting in some degree to goodness and natural rectitude, and may thus be esteemed vicious and defective." But the other-regarding sentiments cannot, Shaftesbury maintains (in opposition to Hobbes), be deduced from the merely self-regarding. As regards the relation of reason and the will, — as it is the "affectionate part" of human nature (the

"heart") rather than the reason that apprehends the right or the good, so it is the appetite rather than reason that determines action: appetite gives the initiative of action, reason merely guides it. The sanction of virtue is twofold: a sanction of conscience combined with the "love and reverence of a beneficent, just, and wise God." As to the fear of "future punishment" and hope of "future reward" (the only "sanctions" recognized by Locke), — these "cannot be of the kind called good affections such as are acknowledged the spring and source of actions truly good." These affections can at most only help to prepare the way towards the cultivation of a moral disposition. A will or decree of God, or supreme goodness, must necessarily be unintelligible to a being who does not know what goodness is.

Æsthetics: Beauty. — The constituent elements of beauty are harmony and proportion. There are three orders of beauty: (1) "dead forms," or external objects; (2) "forms that form" or "have intelligence, action, or operation;" (3) the "form which fashions all other forms, both dead and living, *viz.*, the Divine Mind." "Whatever is beautiful is harmonious and proportionable; whatever is harmonious and proportionable is true; what is at once both beautiful and true is, of consequence, agreeable and good."

Result. — In the philosophy of Shaftesbury we have an assertion of the rights of "internal sense," or feeling against the purely discursive faculty or activity of thought. Instead of a mechanical relation of part to part and to whole (as in the system of Hobbes), we have here (*i. e.*, in the principles of benevolence) an immediate living, or felt, relation: instead of an individualistic, egoistic ethics, we have a universalistic, altruistic one. Since sense, and not reason, is the norm of truth in this system, the system is not rationalistic; but since sense here is internal and in a measure reflective, the system is intuitional rather than empirical. The system of Shaftesbury is pantheistic. —

Shaftesbury's influence was in the last century a very wide one. Not only in England, but also in France, and even more in Germany, his views left distinct traces in the systems of numerous philosophers who studied his works.

§ 65.

Francis Hutcheson[1] (1694–1746).—Francis Hutcheson, son of a Presbyterian clergyman, was of Scotch descent, though born in Ireland. After receiving a preliminary training in a classical school in his native place and at an academy elsewhere, he spent six years (1710–16) in the University of Glasgow. His course of study there included, besides philosophy, the classics and general literature, theology, which was taught by a man, the liberality of whose views (which cost him his chair) left a marked effect upon Hutcheson's way of thinking in theology. At the close of his course, Hutcheson accepted a call from a country congregation near his old home, but soon resigned his position to open an academy in Dublin. After some years of very successful work here, he went (1729) to Glasgow to occupy the chair of Moral Philosophy, to which he had been elected. By a certain frankness and benevolence of disposition and manner, and by a liberality of view and a natural eloquence, he won a large following, and exercised a wide influence, tending towards the separation of ethics and religious dogma, and the liberalization of religious teaching in Scotland.

Works. — Hutcheson's principal works are: "Inquiry Concerning Beauty, Order, Harmony, and Design" (1725); "Inquiry Concerning Moral Good and Evil" (1725); "Essay on the Nature and Conduct of the Passions and Affections" (1728); "Illustrations upon the Moral Sense" (1728); "Letters" (1725–27); "Philosophiæ Moralis Institutio Compendiaria Ethices et Jurisprudentiæ Naturalis Elementa" (1742); "Metaphysicæ Synopsis Ontologiam

[1] "Hutcheson," by Thomas Fowler; Hutcheson's "System of Moral Philosophy;" "The Scottish Philosophy," by James McCosh.

et Pneumatologiam complectens" (1742); "System of Moral Philosophy" (1755). The most generally known, and most important, are the first four works in the preceding list.

Philosophy. — Hutcheson is important chiefly as a moralist. It is worth while, however, to glance at his psychologico-metaphysical doctrines.

Psychology and Metaphysics. — In psychology Hutcheson is largely a follower of Locke. He rejects the doctrine of innate ideas (as Locke understood it), derives knowledge from sense ("sensation" and "consciousness"), and "reflection." There are certain (not unimportant) points in which he differs from Locke. He asserts that the "ideas of extension, figure, motion, and rest are more properly ideas *accompanying* the sensations of sight and touch than the sensations of either of these senses; that the idea of self accompanies every thought; and that the ideas of number, duration, and existence accompany every idea whatever." We cognize the external world by means of images of it, which we are compelled to refer to an external world by "our very nature." The correspondence of image and object has for its cause God, who by "an established law of nature brings it about that the notions which are excited by present objects may be like the objects themselves, or at least represent their habitudes or qualities, if not their true quantities. We have a direct consciousness of mind as distinguished from body and of our own personal identity." Still other points in which Hutcheson "departed from or supplemented the philosophy of Locke" are the "distinction between perception proper and sensation proper, which occurs by implication, though it is not explicitly worked out; a hint as to the imperfection of the ordinary division of the external senses into five classes; the limitation of consciousness to a special mental faculty, namely, that by which we perceive our own minds, and all that goes on within them; and the disposition to refer disputed questions of philosophy not so much to formal arguments as to the testi-

mony of consciousness and our natural instincts" (Fowler). With regard to the senses — external and internal — he proposes the following classification (understanding by "sense," "every determination of our minds to receive ideas independently on our wills, and to have perceptions of pleasure and pain"): (1) "the external senses universally known" (though the ordinary division is "very imperfect"); (2) pleasant perceptions arising from regular harmonious uniform objects; (3) "our determination to be pleased at the happiness of others, and to be uneasy at their misery," — the "public sense;" (4) the general sense by which we perceive virtue or vice in ourselves or others; (5) the sense of honor; and perhaps an infinite number of others. Metaphysical axioms are self-evident and immutable (though not innate); space and time are realities, but not modes of the divine being; we perceive in conscious energy or efficacy — the only sort of cause — that the nature of substance is unknown.[1]

Ethics. — "Human nature," says Hutcheson, "was not left quite indifferent in the affair of virtue to form to itself observations concerning the advantage or disadvantage of actions, and accordingly to regulate its conduct. The weakness of our reason, the associations rising from the infirmity and necessities of our nature, are so great that very few men could ever have formed those long deductions of reason which show some actions to be on the whole advantageous to the agent, and their contraries pernicious. The Author of nature has much better furnished us for a virtuous conduct than our moralists seem to imagine by almost as quick and powerful instructions as we have for the preservation of our bodies. He has made a lovely form [in Shaftesbury's sense] to excite our pursuit of it, and has given us strong affections to be the springs of each virtuous action." There is (that is to say) for the determination of conduct a "moral sense," "guiding and controlling certain natural and non-reasoned impulses." The moral "sense" is for

[1] See McCosh's "Scottish Philosophy."

Hutcheson not wholly without intellectual character, but has a certain governing norm, or *criterion*, according to which it acts. The *springs* of action are: (1) original desires, corresponding to the five classes of senses above enumerated, *viz.*, desires of the bodily senses, of the imagination or internal sense, of the sense of public happiness, of virtue, of honor; (2) various secondary desires consequent upon these. In moral action these desires, and not reason, give the initiative, but are subject to conscience, which is therefore the real controlling principle. The desires or affections are classifiable as turbulent and transient, or calm and enduring, and as selfish and benevolent. From the calm, enduring, benevolent desires conscience cannot withhold approval. The criterion of the moral sense, that is to say, is the idea of benevolence or the general good of mankind, the "greatest happiness of the greatest number" (a phrase originating with Hutcheson). "If we examine all the actions which are accounted amiable anywhere, and inquire into the grounds upon which they are approved, we shall find that, in the opinion of the person who approves them, they always appear as benevolent and flowing from the love of others and a study of their happiness, whether the approver be one of the persons beloved or not; so that all those kind affections which incline us to make others happy, and all actions supposed to flow from such affections, appear morally good if, while they are benevolent towards some persons, they be not pernicious to others. Nor shall we find anything able anywhere in any action whatsoever where there is no benevolence imagined; nor on any disposition or capacity which is not applicable to and designed for benevolent purposes." The principle of benevolence does not exclude self-love: a man may be "in part an object of his own benevolence; and those actions which flow from self-love, and yet evidence no want of benevolence, having no hurtful effect upon others, seem perfectly indifferent in a moral sense, and raise neither the love or hatred of the observer. . . . Self-love is

really as necessary to the good of the whole as benevolence, as that attraction which causes the cohesion of the parts is as necessary to the regular state of the whole as gravitation." The only real sanction of moral action is the voice of conscience, governed by the thought of benevolence.

Æsthetics. — There is a sense of the beautiful, as of the good; *i. e.*, the perception of beauty is immediate, it is a matter of sensibility or feeling, *i. e.*, of pleasure or pain. The sense of the beautiful is an internal sense, . . . a perception of relations rather than things. The fundamental relation of beauty is that of uniformity amidst variety: "mathematically speaking, beauty is a compound ratio of these two, so that when the uniformity of bodies is equal, the beauty is as the variety, and when the variety is equal, the beauty is as the uniformity." There is a beauty of universal truths, laws, actions, moral principles. Our ideas of the beautiful are in a measure effects of association of ideas.

Result. — The general observations made upon the system of Shaftesbury apply to that of Hutcheson, a close follower, almost a copyist, of Shaftesbury. — Hutcheson is generally regarded as the founder of the Scottish School of Philosophy, — a school the chief characteristics of which are that (1) it makes the self its chief object of study; (2) it employs as method "induction;" (3) it maintains the doctrine of the existence in mankind of a "common sense" perceptive of eternal and necessary truths.[1]

§ 66.

Joseph Butler[2] (1692–1752). — Butler was educated by a private tutor at a "Dissenters' Academy" (to which his father sent him, with a view to making a Presbyterian minister of him) and at the University of Oxford. His entrance to Oxford was preceded by an expressed intention

[1] See McCosh, "Scottish Philosophy."

[2] Butler's Works; "Butler" by Collins ("Blackwood's English Philosophers"); "Encyclopædia Britannica."

to conform to the principles of the Established Church. On finishing his university course he decided to enter the ministry of the Church, and was ordained in 1717. He occupied a number of more or less important ecclesiastical posts, among them the rectorship of Stanhope, the deanship of St. Paul's in London, the bishoprics of Bristol and Durham. His benevolence is said to have been something extraordinary.

Works. — Butler's philosophical "works" comprise (fifteen) "Sermons" on ethical and religious topics (1726), "The Analogy of Religion, Natural and Revealed, to the Constitution and Course of Nature" (1736), "Two Brief Dissertations on Personal Identity, and the Nature of Virtue," appended to the "Analogy," and a few Letters to Samuel Clarke. The "Analogy" was a reply to Tindal's "Christianity as Old as Creation," the so-called "Bible of Deism."

Philosophy. — Butler possesses some importance as an opponent of the Deistic doctrine of religion, but owes his place (not a mean one) in the history of philosophy chiefly to his ethical doctrines.

Theory of Religion. — In opposition to the Deists, Butler attempts to show (1) that nothing in "reason" or "experience" precludes for us the probability — and probability, he says, is our only guide in such matters — that we are immortal, and that the future state is a state of rewards and punishments: in other words, that the government of the world is a moral government (as taught by revealed religion); (2) that, in view of the imperfection of reason and experience, Revelation is probable, and that it is no more (nor less) impossible of comprehension than the ordinary course of nature. In connection with the question — "the most important that can possibly be asked" — of immortality, arises that of the "meaning of that identity or sameness of person which is implied in the notion of our living now and hereafter in any two successive moments." On this point, Butler answers that we live and act constantly

as if we were the same to-day that we were yesterday and shall be to-morrow, that only real beings — not mere abstract ideas — are capable of life and action, happiness and misery, and that every person is "conscious that he is now the same person or self he was as far back as his remembrance reaches."

Ethics. — "That which renders beings capable of moral government" is the "having a moral nature, — moral faculties of perception and action." And, on the other hand, the being moral is the exercise of these faculties. The moral faculties of man comprise, according to Butler, four classes of principles: (1) certain "propensions, aversions, passions, and affections" having relations to external objects which constitute "human nature" in relation to such objects; (2) self-love, which constitutes our moral nature as respects ourselves; (3) a natural "principle of benevolence," — our nature as regards others, — "which is in some degree to society what self-love is to the individual;" (4) a "principle of reflection," conscience, by "which we approve and disapprove our own actions." In the most general sense of the term, moral action is action from and according to any one of these principles, — any *part* of our moral nature; in a less wide sense it is action from and according to whichever is the strongest; in a more restricted sense still it is action from and according to a principle which prevails, not by reason of mere strength, but by virtue of its nature as representing most fully human nature as a unit and the whole, and as being therefore the most excellent. This last principle is doubtless the "principle of reflexion," or conscience, which, only, is unequivocally peculiar to man as distinguished from the brute; no action that is not "suitable" or "proportionable" to this principle has a truly moral character or is truly good. "The very constitution of our nature requires that we bring our whole conduct before this faculty; wait its determination; enforce upon ourselves its authority; and make it the business of our lives, as it is absolutely the whole business of a moral

agent, to conform ourselves to it." Next in rank to this is self-love, which implies a *certain degree* of "calculation," or reflection. "*Reasonable* self-love and conscience are the chief or superior principles in the nature of man." That self-love, though condemned by moralists who disapprove of Hobbes's making it the sole principle of ethics, is a real principle of our nature, becomes evident from the consideration of the fact that while as "members of one another" we are "made for society," we are "intended to take care of our own life and health and private good." Self-love is not necessarily inconsistent with love for others, but may be involved in that, or, on the other hand, involve that, without detriment to it. Without self-love benevolence would often be without an object, except the indefinite one of merely avoiding pain. "The goodness or badness of actions does not arise from hence, that the epithet 'interested' or 'disinterested' may be applied to them, any more than that any other indifferent epithet, suppose 'inquisitive' or 'jealous,' may or may not be applied to them; not from their being attended with future pleasure or pain, but from their being what they are, namely, what becomes such creatures as we are, what the state of the case requires, or the contrary. Or, in other words, we may judge that an action is morally good or evil before we so much as consider whether it be interested or disinterested. . . . Self-love in its one degree is as just and morally good as any other affection whatever. Benevolence towards particular persons may be to a degree of weakness, and so be blamable; and disinterestedness is so far from being commendable that the utmost possible depravity which we can in imagination conceive is that of disinterested cruelty." Injustice is done to self-love by confounding it with the pursuance of the gratifications of the passions, which in themselves are not directly related to the self, but to the external world. It is this gratification rather than real self-love that is "unfriendly to benevolence." Self-love is distinguished from the "particular affections, passions, and appetites to particular

external objects in that it belongs to man as a "reasonable creature," whereas they, though a part of human nature, are quite distinct from reason as such. Self-love is further distinguished from the passions in that the gratification of them is a source of happiness, whereas "people may love themselves with the utmost unbounded affection, and yet be extremely miserable;" and if "self-love wholly engrosses us and leaves no room for any other principle, there can be no such thing at all as happiness or enjoyment of any kind whatever." Butler gives special attention to resentment, compassion, love of neighbor, among the moral sentiments. He distinguishes two sorts of resentment, one of which is "sudden" and "instinctive," and has for its object to defend ourselves from impending bodily "harm," the other reflective, and relates to a "moral injury." The former is justifiable only in special instances; the latter is justifiable in the form of moral indignation. Compassion has for its final causes to *prevent* misery (by restraining resentment, envy, unreasonable self-love) and to relieve misery. Resentment, compassion, love of neighbor, are all subject to the dictates of conscience. The sanctions of virtue are, according to Butler, conscience, and the knowledge of God as the rewarder and punisher of virtue and its opposite. The obligation to obey conscience rests upon the fact that it is the law of our nature, or, in another aspect, the will of God.

Result. — Butler, it is scarcely necessary to remark, is an intuitionist. He is in an important sense a disciple of Shaftesbury; his "conscience" being the "moral sense" of Shaftesbury, tinged with an element of reflection, and less æsthetic in its action. His view of self-love may be regarded as a reaction against Shaftesbury's somewhat one-sided view of "benevolence," itself a reaction against the egoistic ethics of Hobbes. Butler seems to come very near regarding benevolence and self-love as one and the same thing, but, after all, left the identification of the two through the reason, which comprehends both self and other,

subject and object, to later moralists. — He has been rightly deemed one of the greatest moralists between Aristotle and Kant. He has been somewhat neglected by historians.

§ 67.

Samuel Clarke (1675 – 1729). — Clarke, after a course in the school of his birthplace, Norwich, entered the University of Cambridge and pursued studies in mathematics and philosophy. Becoming acquainted with the Newtonian principles of physics, he adopted them, and upheld them in opposition to those of Descartes. He studied divinity, took orders, became chaplain at court, and "resident chaplain" of the Bishop of Worcester, — a position held by him till his death.

Works. — Clarke's principal philosophical works, treating particularly of the being and attributes of God, the principles of morality, freedom and necessity, and the nature of space and time, are: "A Demonstration of the Being and Attributes of God, more particularly in answer to Mr. Hobbes, Spinoza, and their followers" (1705); "Discourse Concerning the Unchangeable Obligations of Natural Religion, and the Truth and Certainty of the Christian Revelation" (1706); "A Collection of Papers which passed between the late learned Mr. Leibnitz and Dr. Clarke," etc., together with a reply to Collins's "Philosophical Enquiry Concerning Human Liberty" (1711).

Philosophy: The Being and Attributes of God. — It has been asserted[1] of Clarke's metaphysico-religious doctrine that it "was intimately connected with his Natural Philosophy, and Newton was hardly less his guide in the former than in the latter." Whether it was Newton or Spinoza who was his guide, Clarke assumes that the mathematical method was the method of metaphysics, and attempts to prove the existence, omnipresence, and the infinite wisdom and beneficence of the Creator, "*geometrico ordine*" (as Spinoza says). The notion of an infinite chain of

[1] See Martineau, "Types of Ethical Theory," ii. 428 (1st ed.).

causes and effects is a self-contradictory notion: hence there must have something existed from eternity. This being must be immutable and independent; must be self-existent; its substance is incomprehensible; many of its attributes may be demonstrated, — it is eternal, infinite, and omnipresent (because self-existent), and one (since if there were "two beings, either could be supposed to exist without the other"), intelligent (since the cause is more perfect than the effect), free (freedom is implied in intelligence), omniscient, omnipotent, infinitely good, just, true, etc.

Space and Time. — Space and time are both infinite. They are not substances, but attributes. As such they presuppose a real, necessary, and infinite being, of which they are attributes. They are, that is to say, attributes of God.

The Foundation of Morality. — All things, man included, have, by virtue of unchangeable laws, implanted in them definite natures and definite relations to one another and the system of the world. The suitedness or fitness (or the opposite) of things in relation to one another is independent of all will or arbitrary arrangement, even of God, since, though not obliged to create the world, God was, on having decided to create it, necessitated by the possible nature of things. The actions of intelligent beings are obligated to be guided by the knowledge of the immutable relations of things, not by special interest or conditions. Actions are virtuous or otherwise, according as they are or are not fitted to the correspondences between things. In virtue alone consists the happiness of man. The correspondences of things are perceived by an infallible instinct of reason. For those who will not attend to the voice of reason a special revelation is provided, and promises of rewards or punishment for obedience or disobedience to the laws of nature.

Freedom. — Freedom is the power of self-motion. Among Clarke's proofs of freedom is the following: God is freedom, and could communicate freedom to his crea-

tures. Consciousness attests the fact of such a communication.

Result. — Clarke seems to combine characteristics of all three of the cardinal directions of thought of the Second Period: he is a rationalist as regards method, an intuitionist in his conception of reason and the first principles of morality, and a (Lockean) empiricist in his general metaphysical principles ("Dr. Clarke, though not a formal defender of the philosophy of Locke, never formally dissents from him." — *Porter.*) His speculations are said to have exercised a considerable influence upon English theologians.

§ 68.

Richard Price (1723–1791). — Price, whose education did not extend beyond that of a private tutor, a private school, and an academy, studied especially mathematics and theology. Though the son of a strict Calvinist, he became a "Dissenting" minister of a "liberal" faith. The latter portion of his life was devoted to economico-political thought and work. He became conspicuous during the war of England against her American Colonies as a champion of the cause of the Colonies. By his outspoken sympathy with the French Revolutionists he became a special object of Burke's antipathy. He is said to have "studied at an early age the works of Clarke and Butler, and to have conceived a special admiration for the theologico-ethical works of the latter."

Works. — Works of Price are: "A Review of the Chief Questions and Difficulties in Morals, particularly those respecting the Origin of our Ideas of Virtue, its Nature, its Relation to the Deity, Obligation, Subject, Matter, Sanctions" (1757); "Letters on Materialism and Philosophical Necessity."

Philosophy. — Price opposes the Lockean sensational theory of knowledge, maintaining that the understanding is an independent source of knowledge (and even of feeling), essentially distinct from sensibility, and apprehends, by

its own power, time, space, cause, etc. The main affirmations in the ethical doctrines of Price seem to be that "right" and "wrong" are objective, or founded in the nature of things as parts of an order; that they are directly apprehended by reason or understanding (as distinguished from the moral "sense" of Shaftesbury, Hutcheson, and others, whom he criticises); that the mere perception of right and wrong "excites to action, and is alone a sufficient principle of action," or that "excitement belongs to the very ideas of right and wrong, and is essentially inseparable from the apprehension of them," or (in still other terms) "that the intellectual nature is its own law, and has within itself a spring and guide of actions, which it cannot suppress or reject;" and, finally, that actions are "formally right" (right in intention) only as chosen by reason or understanding, or are obligatory, independently of any relation to happiness or unhappiness.

Results. — It is important to note that Price's theory differs from all English theories of morals prior to it — even from Clarke's, with which it seems otherwise nearly identical — in admitting no "sanction" or source of obligation whatever, distinct from reason or understanding itself. In this regard it anticipates the ethical teaching of Immanuel Kant, — if it does not, rather, stand entirely alone.

§ 69.

Adam Smith[1] (1723–1790). — Smith was educated at the school of his birthplace and at the universities of Glasgow (where he had Hutcheson as an instructor in philosophy) and Oxford. His studies at Oxford were chiefly in the moral and political sciences and in language and literature. In 1751 he received the appointment of professor of logic, and in 1752 that of professor of moral philosophy, in the University of Glasgow. He resigned

[1] "Life of Adam Smith," by R. B. Haldane; Noack; "English Thought in the Eighteenth Century," by Leslie Stephen; Smith's Works.

his professorship (in 1763) to travel as tutor of the Duke of Buccleugh, on the Continent. After his return, he spent ten years in studies which resulted in his renowned work in political economy. As a holder of a lucrative public office, he was able to spend his latter years in ease and intercourse with intellectual friends, among whom were Hume, Ferguson (professor of moral philosophy), Dugald Stewart, Hutton the geologist, and Black the chemist.

Works. — Smith's philosophical works are: "Theory of the Moral Sentiments" (1759); "Inquiry into the Nature and Causes of the Wealth of Nations" (1776); "Essays on Philosophical Subjects" (1795).

Philosophy. — Smith is an opponent of the Hobbean egoism in ethics. "How-selfish-soever man may be supposed, there are evidently some principles in his nature which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it. Of this kind is pity, or compassion, the emotion which we feel for the misery of others when we either see it, or are made to conceive it in a very lively manner." The essential element in moral sentiment is sympathy. The moral sentiment in general involves, (1) sympathy with the motives of the agent; (2) with the feelings of the recipient; (3) perception of the harmony of action with the rules according to which the two sorts of sympathy generally act; (4) the perception of action as forming a part of a system of behaviour tending to promote the happiness of the individual or society, and as being on this account beautiful. An action with the motives of the doer of which we find ourselves able to sympathize possesses "propriety." If it be also beneficent in its effects, exciting in the patient of it feelings of gratitude with which we can properly sympathize, it possesses "merit" also. The judgment of merit, it appears, depends upon sympathy with both agent and patient. If we disapprove of the motives of the doer of an action benefiting another, the action is the opposite

of meritorious. The foundation of our judgments concerning our own sentiments and conduct, and of the sense of duty, lies in the fact that "man desires not only to be loved, but to be lovely:" praise must signify praiseworthiness in him who is praised to be truly agreeable. The perfectly virtuous man is he who acts according to the rules of perfect prudence, of strict justice, and of proper benevolence. The knowledge of the rules of conduct must be accompanied by self-command, to produce virtue. With Smith, ethics is one of four parts of the whole of philosophy; *viz.*, natural theology, ethics, politics, or jurisprudence, and economics. — Smith is to a certain extent a disciple of Hume.

§ 70.

William Paley[1] (1743–1805). — Paley graduated at Cambridge, and became a fellow and tutor there, lecturing on divinity, metaphysics, and ethics. Compelled to retire from his fellowship because of intended marriage, he accepted a rectorship in the Church of England, and later held several important preferments, though on account of comparatively latitudinarian views he failed to attain to the highest ecclesiastical honors. He was a very successful lecturer and author. Some of his works are theological.

Works. — Paley's philosophical writings are: "The Principles of Moral and Political Philosophy" (1785); "Natural Theology, or Evidence of the Existence and Attributes of the Deity, collected from the Appearances of Nature" (1802).

Philosophy. — Paley's entire "philosophy" comprises three divisions, occupied with the "evidences of natural religion, the evidences of revealed religion, and an account of the duties that result from both." We are here concerned only with the first and the last of the three. In

[1] "English Thought in the Eighteenth Century," by Leslie Stephen; "Encyclopædia Britannica."

the Natural Theology Paley "proves" the existence of God from the appearances of design and contrivance in nature. Among the instances he notes of apparent design are the following: the "pivot upon which the head turns, the ligament within the socket of the hip-joint, the pulley, or trochlean muscles, of the eye, the course of the chyle into the blood, . . . the constitution of the sexes as extended throughout the whole animal creation." Moral philosophy is directly connected with theology; through the assumption, that is to say, that the promise of future rewards and punishments is a necessary sanction of duty. The end and criterion of virtue is happiness: "Virtue is the doing good to mankind, in obedience to the will of God, and for the sake of everlasting happiness." The will of God is the "rule," as happiness is the end, of action. Paley, of course, denies the existence of a "moral sense" and of eternal, intuitively perceived principles of right. "Obligation," he says, "is a violent motive resulting from the command of another." — Paley is to be regarded as a forerunner of the Nineteenth Century Utilitarians.

§ 71.

David Hume[1] (1711–1776). David Hume was born in Edinburgh. By the anxious care of his mother, — his father having died when Hume was an infant, — he was given a good education, which included a partial course in the University of Edinburgh. He left the university with strong literary tastes and inclinations; and when afterwards he was supposed by his friends to be digging into books of law, he was, as he says, "secretly devouring Cicero and Virgil!" Though his mother thought "Davie a fine, good-natured creatur, but uncommon wake-minded," his mind seems to have been sufficiently active in its

[1] Hume's "Treatise of Human Nature;" Green's "Introductions" to Hume; "Hume," by Professor Knight ("Blackwood's Philosophical Classics"); Huxley's "Hume," etc.

own way. An interval of several years spent at home, after a practical failure at "law," was followed by another practical failure at "business." In 1734, for economy's sake, he went to France to live, resolved on pursuing a literary career and winning a real literary fame. During the following ten years, only three of which were spent abroad, he finished a philosophical treatise (his masterpiece), which had been begun before he left Scotland, and wrote a volume of essays. In 1746 he accepted the position of secretary to General St. Clair, who was sent out on an expedition; and in 1748, a similar position with General St. Clair, when he went as ambassador to Turin and Vienna. Between the years 1751 and 1763 Hume was at Edinburgh, courting (successfully) fame as a historian, want of acknowledged success in philosophy having put a damper on his ambition as a philosophical writer. He held at the same time the position of librarian to the Faculty of Advocates in Edinburgh. For three years (1763–1766) he was secretary to an embassy to France, and for two Under-Secretary of State. He had in the mean time acquired a good property, bearing (together with a pension) an income of £1,000 a year, and he determined to spend the remainder of his life (after 1769) in leisure and ease. He died in 1776. A certain gayety of disposition characteristic of him seems to have been even more marked than ever before, when, for some time previous to his death, he was perfectly aware of his approaching dissolution.

Works. — Hume's chief philosophical works are: "A Treatise of Human Nature, being an Attempt to Introduce the Experimental Method of Reasoning into Moral Subjects (three Books: I. Of the Understanding; II. Of the Passions; III. Of Morals)" (1739–1740); "Essays, Moral, Political, Literary" (1742); "Enquiry Concerning Human Understanding" (Book I. of the "Treatise" revised for literary purposes, 1748); "Enquiry Concerning the Principles of Morals" (a revision of Book III. of

the "Treatise," and regarded by Hume as his best work, 1751); "Political Discourses" (1752); "The Natural History of Religion" (1757); "Dialogues Concerning Natural Religion" (1779). Hume's philosophical masterpiece is the "Treatise of Human Nature," — his earliest work. Perhaps next to this in value are the "Dialogues on Natural Religion" and the "Natural History of Religion."

Philosophy: The Importance and the Method of the Science of Human Nature. — The only hope, says Hume, by way of introduction to his system, for success in philosophical investigation is to take as the beginning and basis of all knowledge the knowledge of human nature: "There is no question of importance whose decision is not comprised in the science of man, and there is none which can be decided with any certainty before we become acquainted with that science." And as this science is the only solid foundation for other sciences, so the only solid foundation we can give to this science itself must be laid in experience and observation. The method of experience, or experiment and observation, as applied to human nature, has indeed its limitations, since reflection and premeditation must so disturb the operations of nature in the mind as to render it impossible to "form any just conclusion from the phenomena;" but by a cautious observation of human life we may learn experiments enough and of the proper sort to establish a science of human nature.

I. *The Understanding: Origin of our Ideas.* — All perceptions of the human mind may be resolved into two kinds, differing merely in degree of "force and liveliness." The more forcible and lively may be termed "impressions;" the less, "ideas." The latter are simply "faint images" of the former. Our perceptions may also be divided into simple and complex. All simple ideas are derived from simple impressions, which they exactly represent. Impressions are of two sorts: impressions of sensation and impressions of reflection. The origin of the

first-named sort is unknown. The second sort originate largely from our "ideas (or copies of first impressions) returning upon the soul." The theory of impressions of sensation is a part of anatomy and natural philosophy, rather than of a philosophy of mind, which begins, properly, with the theory of ideas. Now, "ideas," or "impressions returning upon the soul," are by the degree of their vivacity either perfect ideas, or are intermediate in character between a pure impression and a pure idea. In the latter case they are an idea of memory; in the former, are ideas of imagination. By the faculty of imagination, but not by memory, ideas are given a different order and combination from that which impressions have. The principles of "union and cohesion" among simple ideas in the imagination are resemblance, contiguity in time and place, cause and effect. From the union of simple ideas result complex ideas, which may be classed as relations, modes, and substances. Ideas of *substances* are and can be only ideas of collections of particular qualities. If substance were not merely a collection of qualities, the idea of it must be derived from an impression of sensation or an impression of reflection. In the former case, it must be a color, sound, taste, smell, etc., which certainly it is not; in the latter, it must be a passion or emotion, which also it is not. What is true of substance in these respects is true also of modes, which are merely groups of qualities "dispersed among *different* subjects." To Hume's account of the idea of substance we may append his doctrine of abstract ideas (which is substantially the same as that of Berkeley). The abstract or general idea, says Hume, is "merely the particular annexed to a certain term," "which gives it more extensive signification." This must be so; for it is "utterly impossible to conceive any quality or quantity without forming any precise notion of its degrees," since "abstract ideas must be copies of impressions, which are always definite, both in quantity and in quality." The general term always suggests the ideas

of certain individuals, together with less definite ideas of others. The mind really adds nothing to what is impressed upon it. *Relations* are philosophical or natural: philosophical when the results of voluntary comparison, otherwise natural. The philosophical relations are resemblance, proportion in quantity and number, degrees in quality, contrariety, identity, relations of time and place, causation. These may be divided into two different classes, according as they either depend merely on the ideas compared (as do the first four mentioned), or do not so depend (as do the last three). Only relations of the former sort are self-evident objects of "certainty and knowledge." The other relations require further attention.

The Ideas of Space and Time, Number, Existence, and External Existence. — The idea of space can originate only in an external impression, since it cannot be identified in any manner with passions, emotions, desires, or aversions. The only external impressions from which the idea of space or extension can possibly arise are "impressions of colored points disposed in a certain manner;" the "idea of extension is nothing but a copy of those colored points and the manner of their appearance." The *pure* idea of extension depends upon an act of comparison and abstraction; but this adds nothing to what is given in the impression as such. The idea of time comes to us from the succession of our ideas and impressions. And "time cannot make its appearance to the mind either alone or attended with a steady, unchangeable object;" it is not distinguishable, and hence not separable from particular impressions, arising altogether from the manner in which impressions appear to the mind. That the ideas of space and time originate in the senses is absolutely proved by the fact that space and time become contradictions if not conceived as merely made up of indivisible and in themselves perceivable parts; for how should extension or duration be composed of merely mathematical points so called? It follows from the sensible character of our

ideas of space and time that mathematical conceptions and judgments, though sometimes infallible, are not always so. Vagueness generally attaches to the notions *greater*, *less*, *equal*, *curved*, *straight*, *plane*, etc., in any real relation. From the "loose" and "indeterminate ideas" of sense and imagination, it is impossible to derive those which shall be exact. Beyond a "certain degree of minuteness," all geometrical demonstration is necessarily fallacious. At most, geometrical reasoning — mathematics in general — is only highly probable. From the foregoing notion of space, it also follows "that we can form no idea of a vacuum, or space where there is nothing visible or tangible." Whether there be a vacuum independent of sensation, or what either it or bodies would be independently of sensation, it is useless to inquire; we can have no ideas of such, since no ideas can possibly exist for us not having or betraying a sensible character. What has been affirmed of the ideas of space and time as inseparable from sensible qualities, applies also to the idea of existence: the idea of existence is the very same with the "idea which we conceive to be existent." The idea of existence makes, when conjoined with the idea of any object, no addition to it. There is no distinct impression from which the idea of existence arises. The same is true of the idea of external existence: we have no idea of any sort of existence out of relation to our perceptions. "Let us chase our imagination to the heavens or to the utmost limits of the universe, we never really advance a step beyond ourselves, nor can conceive any kind of existence but those perceptions which have appeared in that narrow compass. This is the universe of the imagination, nor have we any idea but what is there produced."

The Relation of Cause and Effect. — The relation of cause and effect presents (as compared with the other natural relations, identity and situation in time or place) the peculiarity that it takes us beyond what is immediately present in perception, and informs of objects which we do

not see or feel. The origin and validity of this idea is a matter of peculiar importance. The idea of cause and effect cannot have its origin in any *particular* qualities, since there is nothing existent, either externally or internally, which may not be regarded as a cause or an effect. What is the relation among objects from which this idea is derived? Why do we pronounce it necessary that everything whose existence has a beginning should also have a cause? Why must particular causes have particular effects? What is the nature of the inference we draw from one to another, and of the belief we repose in that inference? It is not absolutely certain that whatever exists must have a cause. Absolute certainty in knowledge arises only from comparison of ideas. But no one of the relations based on comparison — *i. e.*, resemblance, proportion in quantity, degree, or contrariety — suggests the idea that whatever exists has a cause. There is, further, no necessity, in the mere idea of cause, of our conceiving that of effect, and there is in reality no reason why an object, non-existent at this moment, may not be existent at the next, without a cause or productive principle. In answer to the possible objection that "everything must have a cause, for if anything want a cause it must produce itself, *i. e.*, exist before it existed," it is to be said that this objection begs the question, since to say that a thing is "produced," or, rather, comes into existence without a cause, is not to affirm that it is its own cause, but to deny it. In reply to the objection that "whatever is produced without a cause must be produced by nothing, which is impossible," it is to be said that this also begs the question, since the very point in question is whether everything must have a cause or not. The idea that everything must have a cause is evidently not a product of demonstration or scientific reasoning; and hence, if it exist, must be a result of observation and experience. All our arguments, concerning causes and effects, consist of both an impression of the memory or senses, and of the idea of that existence which produces the object of the impression or is

produced by it. Now, there is no object which implies the existence of any other, if we consider these objects merely in themselves, and never look beyond the ideas which we form of them. We infer the existence of one object from that of another only through habit or experience. "Thus, we remember to have seen that species of object which we call flame, and to have felt that species of sensation which we call heat; we likewise call to mind their constant conjunction in past instances; we therefore call one a cause, and the other the effect." But there remains unexplained the idea of necessary connection (between "cause" and "effect"). This idea is not a *necessary* one, since we can at least *conceive* a change in the course of nature: it must rest upon association of perceptions; we have, in fact, "no other notion of cause and effect but that of certain objects which have been conjoined together habitually in past experience." By the relation of cause and effect we not only pass beyond our present perception to an idea of an object not present, but to the idea of an object of belief or of a matter of fact so-called, and hence an idea having the vivacity of a present perception, or an impression. The vivacity of this idea — of which (the vivacity) our belief is a consequence — depends upon the rule, that "when an impression becomes present to us, it not only transports the mind to such ideas as are related to it, but also communicates to them a share of its force and vivacity." The communicated force and vivacity are all the stronger when the impression is one that has been repeatedly conjoined in our minds with the idea to which it gives rise, and communicates a share of its vivacity. From the foregoing it follows that all reasoning by the principle of cause and effect — all probable reasoning — is a species of sensation. "All reasonings are but the effects of custom, and custom has no influence but by enlivening the imagination and giving us a strong conception of any object." In answer to the objection, that the relations of resemblance and contiguity also augment the force and vivacity of our ideas, —

it may be admitted that besides mere force and vivacity, there is necessary for the production of belief, the conception of an order or a system among our ideas, of past and present objects, — an order necessitating the particular manner of our thinking or judging as the manner of our receiving impressions is necessitated. Nevertheless, the only ideas really involved in the relation of cause and effect are those of contiguity, succession, and constant conjunction; and the idea of necessary connection is purely subjective, having its only ground in "that propensity which custom produces in us, to pass in thought from one object to its usual attendant." As a result of the foregoing investigations we have the following definition of cause: "A cause is an object precedent and contiguous to another, and where all objects resembling the former are placed in like relations of precedency and contiguity to those that resemble the latter," or (more subjectively viewed) "an object precedent and contiguous to another, and so united with it that the idea of the one determines the mind to form the idea of the other, and the impression of the one to form a more lively idea of the other."

"*The Relation of Identity:*" *Objective Existence.* — If all knowledge is mere belief occasioned by a peculiar association of ideas, it is necessary to discover for the apparent continued existence and identity of objects, external and internal, an explanation which does not assume their real continuance and identity. This identity corresponds to nothing that the senses present to us, for neither a single object nor a multiplicity of objects of sense contains the notion. It is a "pure fiction of the imagination," which is given reality by the idea of duration, and the resemblance of perceptions, and a succession of related objects, "considered with the same uninterrupted progress of the imagination as attends the view of the same invariable object." The propensity of the mind to "feign" this identity is so strong as to multiply the perception of the obvious fact of the distinguishedness, and hence separate-

ness, of our perceptions. In reality there is no such thing as identity, either in the "external world" or in ourselves: all that we can know is merely "bundles of perceptions," which we and the "external world" merely are. This sceptical conclusion, though of course opposed to all dogmatism, is not utterly destructive of belief, — it has no real power against that "instinct of reason" which makes us *believe* in the reality of ourselves and the external world; and hence does not deprive morality and religion of all real basis in truth.

II. *The Passions.* — By "Passions" Hume seems to mean "impressions of reflection" regarded as feeling. Passions differ fundamentally, as involving either of the two primary feelings of pleasure and pain. They may also be distinguished as calm (as the "sense of beauty, of deformity in action, of composition" of external objects), and violent (as love and hate, joy and grief, humility and pride). They may be distinguished as simple, compound, and complex. They may, again, be distinguished as direct and indirect, the former being such as "arise immediately from good and evil, pleasure and pain," the latter such as "proceed from these by conjunction with other ideas, *viz.*, the ideas of self or of other persons." It is necessary to distinguish between the cause and the object of the passion, and between the quality and the subject of the quality or the cause of the passion. A general law of passion is that there is a definite ratio between the relation of object and cause of passion to that between passion itself and the sensation produced by the cause, considered merely in itself. Passion has three branches: (1) pride and humility, — passions the object of which is self; (2) love and hatred, — passions the object of which is another; (3) will and the direct passions. Concerned more or less in all other passions is the passion of sympathy. Pride and humility are, respectively, pleasurable and painful. Their causes are "every valuable quality of mind and body, and every possession and relation." Love and hatred are, respectively,

pleasurable and painful. Their causes are various, but are always, directly or indirectly, thinking beings. Love attended by appetite is benevolence; hatred, so attended, is anger. Benevolence implies a "desire of another's pleasure, and aversion of his pain." Love and humility together constitute the compound passion, respect. The will is indefinable, except as the "internal impression we feel and are conscious of when we knowingly give rise to any new motion of our body or new perception of our mind." There is no liberty of the will. Belief that there is, is merely a consequence of (1) a confusion between spontaneity, or that which is opposed to violence, and indifference, or negation of necessity and causes; (2) a false sensation, or experience of the liberty of indifference; (3) religious prejudice. The will is moved only by the prospect of pleasure or of pain: reason or understanding alone neither causes nor prevents volition, and it merely "guides" the will. "Reason is, and ought only to be, the slave of the passions, and can never pretend to any other office than to serve them." There is in reality no conflict between reason and the passions in relation to the will. The supposition that reason influences the will is due to a misconception of certain passions, such as benevolence, resentment, love of life, which "produce but little emotion in the mind." They determine the will; reason does not. Passions move the will, not merely by their violence, or strength, — and not always in proportion to that, — but also by their permanence and habitualness. It is a law of the passions that they affect one another by association, and that they are greatly affected by custom and repetition. Custom begets a "facility in the performance of any action and an inclination towards it:" and "from these we may account for all its other effects, however extraordinary." The imagination, by its power of enlivening our ideas, has great influence upon the passions, and hence upon the movement of the will. Of the "direct passions," — desire and aversion, joy and grief, hope and fear, — only the last two require special

attention. They imply uncertainty (of expectation) : and are different mixtures of joy and grief with different degrees of the ingredient of uncertainty. Curiosity, or the love of truth, is not a desire of truth merely on its own account, but as possessing a certain utility, and capable of arousing in us sympathy with others.

III. *Morals.* — The moral quality of actions is to be found not in any merely intellectual perception of relations, or act of reason, that may precede and determine them (since reason does not influence the will), but in the nature of an impulse produced by a feeling of pleasure or pain accompanying the idea of an object. Our decisions regarding moral rectitude are "perceptions:" morality is more "properly felt than judged of," though this feeling is so "soft and gentle that we are apt to confound it with an idea." "To have a sense of virtue" is merely to "feel a satisfaction" of a particular kind from the contemplation of character: to have a "sense of vice" is to "feel uneasiness in the same case." The sense of virtue may be natural or artificial (*i. e.*, produced by "experience"). All virtuous actions derive their merit only from virtuous motives. The virtuous motive can never be a regard to the virtue of the action: to affirm that it could, would be to argue in a circle. Neither self-love nor the love of mankind can be the principle of virtuous motivation, since the first is the source of all injustice and violence, and the second does not really exist. An action is virtuous which gives pleasure to a disinterested observer, the approbation or disapprobation of the observer depending upon the exercise of sympathy, which, therefore, is a chief source of moral distinction. Of the virtues, justice is to be regarded as artificial. The foundation of it is partly self-interest, partly also "morality," or the "pleasure received from the view of such actions as tend to the peace of society, and an uneasiness from such actions as are contrary to it," — a disposition depending upon the force of public opinion and on private education. Of the natural virtues some have their peculiar

merit in their being agreeable to their possessors; others in their being so to other persons. Among the virtues whose peculiar merit consists in their usefulness to others than their possessors are modesty and benevolence. The merit of love is in its agreeableness to one's self, etc. Besides the virtues usually so termed, there are certain "natural abilities," which, as procuring for us the love and esteem of mankind, may be regarded as, in an important sense, virtues. In most of the virtues are to be found all the conditions requisite for the operation of sympathy, which is, without doubt, the chief source of moral distinctions.

IV. *Religion.* — According to Hume's own confession (as we have seen) the sceptical conclusions of his theory of knowledge were in some respects unsatisfactory; and he preferred to think that while he had confuted mere dogmatism, he had left room for faith or belief regarding possible objects transcending experience, rather than to feel that he had upheld absolute scepticism in that regard. Accordingly, he shows an inclination — as Kant did, after him — to look with favor upon the teleological argument for the being of a God; though he points out that that argument could only establish the existence of a Creator who, though he might be all-benevolent, could not, in view of the imperfection of the created world, be conceived as all-powerful. In a purely scientific point of view, neither the world of matter nor that of mind furnishes any warrant for our going beyond experience; and there would be no warrant for our stopping short of infinity itself in our regressive search for a cause of the world, if once we should step beyond the bounds of experience. Theoretically, the "whole matter of religion is a riddle, an enigma, an inexplicable mystery;" morally, there must be something in it.

Result. — In the doctrine of Hume we have empiricism resulting in scepticism. Hume simply carries farther the theory of Locke as it left the hands of Berkeley. On the principle of pure empiricism, mind and God as well as matter are nothing real. Hume is justified in calling the

object of knowledge only a bundle of merely individual "perceptions," if there is no bond between phenomena except what is given in sense as such. Is there no other bond; does the "mind" of itself contribute nothing towards knowledge? And does not its contribution objectify that of sense? The suggestion of this question seems to be the chief service to philosophy of Hume's teaching. The attempt (by Reid, Kant, and others) to answer it constitutes the beginning of a new epoch in the history of philosophy.

§ 72.

Gottfried Wilhelm Leibnitz[1] (1646–1716). — Leibnitz, who was a son of a professor in the University of Leipsic, where he was born, attended school in Leipsic and the universities of Leipsic and Jena. He became an omnivorous reader in his father's library, and acquired even before entering the university at the age of fifteen, a large acquaintance with ancient authors, the Scholastics, and the writings of the Protestant theologians. At the same time with his reading, he disciplined himself in habits of logical thinking and going to the roots and principles of things. At the universities he gave particular attention to the study of law, mathematics, and philosophy. Declining a professorship offered him at Altorf, he took up jurisprudence, and soon gained a recognition which secured him favor and high trust. He was sent (1692) by the Elector of Mainz on an embassy to the court of Louis XIV. and on a mission to London. At Paris and London he made the acquaintance of a number of men eminent in science and philosophy, — Huyghens, the Dutch mathematician; Arnauld, the Cartesian; Newton; the English physicist Boyle; Oldenburg, the secretary of the Royal Society. On his way between Paris and London he tarried to see Spinoza, of whom Oldenburg was a close friend. At the same time he

[1] Works of Leibnitz; Zeller's "Geschichte der Neuern Philosophie;" Ueberweg, "History of Philosophy;" Erdmann; Noack; "Encyclopædia Britannica."

is said to have carried on very actively his studies in science and philosophy, and was "able to announce an imposing list of discoveries and plans for discoveries arrived at by means of a new logical art, in natural philosophy, mathematics, mechanics, optics, hydrostatics, pneumatics, and nautical science, besides new ideas in law, theology, and politics, and a calculating machine for multiplying, dividing, extracting roots, as well as adding and subtracting."[1] In 1676 his discovery of the Differential Calculus was announced. In the same year he became librarian of the ducal library at Hanover, and counsellor to the court. A number of other positions of distinction were held by him: he was appointed privy councillor of justice by several Governments, among them that of Russia, first president (and president for life) of the Berlin Society (after 1744 *Academy*) of Science; was made by Austria Baron of the Empire and Imperial Privy Councillor, etc. He was commissioned by each of the Governments of Germany, Russia, and Austria to plan an Academy of Science. His last years were embittered by controversy (with Newtonians), by the death of his friend and favorite pupil, Princess Sophie Charlotte, of the house of Brandenburg, and by the neglect of former friends and patrons. Only a single mourner, it is reported, followed his remains to the tomb; the French Academy alone, in the learned and scientific world, took cognizance of his death. Leibnitz is frequently placed on a level with Aristotle as to the originality and catholicity of his mind and attainments; and the comparison seems just, though Leibnitz hardly bears the same relation to modern philosophy that Aristotle does to the ancient. Personally, he is said to have been frank, benevolent, and inclined to conciliate favor.

Works. — The philosophical works of Leibnitz fall naturally into two general groups, one of which consists of those writings suggesting or containing the exposition of his final and distinctive doctrine, and the other of writings, earlier in time, and expounding positions which proved to

[1] "Encyclopædia Britannica," art. Leibnitz.

be merely tentative or only secondary in importance. To the latter group or class belong, with others: the "Disputatio metaphysica de Principio Individui" (1663), Scholastic in doctrine; "Dissertatio de Arte Combinatoria" (1666), a logical treatise growing out of the study of Raymond Lullius; "De Stilo Philosophico Nizolii" (1670); "Methodus Nova Docendæ Discendæque Jurisprudentiæ," etc. (1669); "De Vita Beata;" "Meditationes de Cognitione, Veritate et Ideis" (1684): to the former group or class belong, "Letters to Arnauld" (1671 and 1690); "Système Nouveau de la Nature et de la Communication des Substances" (1695); "Nouveaux Essais sur l'Entendement Humain" (1765), which were ready for publication in 1704, but (owing to the occurrence, soon after, of the death of Locke, in reply to whose "Essay Concerning Human Understanding" they were composed) were not then published; "Essais de Théodicée sur la Bonté de Dieu, la Liberté de l'Homme, et l'Origine du Mal" (1710), an intended reply to the sceptic Bayle; "La Monadologie," a brief epitome of Leibnitz's system; "Principes de la Nature et de la Grâce" (1714?), a still briefer epitome of his system; and Letters to Clarke "Sur Dieu, l'Âme, l'Espace, la Durée" (1715–1716).

Leibnitz's Earlier Doctrines. — Leibnitz (as he himself indicates in the "Système Nouveau de la Nature," at the beginning) successively occupied, before arriving at his final standpoint, positions identical with or nearly akin to those of certain of the Scholastics, of Bacon, of Descartes, of the Atomists (Democritus, Gassendi), and of Aristotle. In the "De Principio Individui" he maintains the "nominalistic" view that the real and distinctive character of a thing is to be found in that thing as it exists; that whatever exists is by its very nature as existent an individual, — as opposed to the "realistic" view that it is constituted by a principle, positive or negative, actually separate from the thing itself as existent. It appears, however, that the nominalism of Leibnitz was of the moderate sort (first) ad-

vocated by Durand de St. Pourcain, of the fourteenth century, who held the universal and individual to be the very same thing, only regarded from different points of view, the individual being the thing as completely determined.[1] As far as it goes, this position is not inconsistent with the final standpoint of Leibnitz. In the "De Arte combinatoria" and certain other works the more modern, mathematico-mechanical view makes its appearance: knowledge is treated as pure calculation, all occult qualities and powers, all attributes, in fact, that are supposed incapable of a merely mechanical explanation, are denied to bodies. At the same time, however, more importance is attached to the Aristotelian than to the Cartesian physics. It should be noted, too, that the nominalistic and anti-Aristotelian view that the genus is merely the collective totality of individuals is criticised as undermining demonstrative (mathematically deductive) science as opposed to induction, — which is at most merely probable in its results. Appended to the "De Arte Combinatoria" is an attempted mathematical proof of the existence of God. The influence of Bacon is especially apparent in the "Methodus nova Docendæ Discendæque Jurisprudentiæ," in which, after the manner of the "De Scientiarum Augmentis" of Lord Verulam, is given a survey of the sciences and their relations, with a great show of system, with the use, however, of the deductive method.[2] In the "Meditationes de Cognitione, Veritate et Ideis" are repeated, developed, and supplemented, Descartes' distinctions regarding ideas as obscure or clear, confused or distinct, etc. As, however, Leibnitz's views on this subject remained unchanged, and reappear in his final general standpoint, they may be passed over here. In the "Système de la Nature" Leibnitz confesses that in his dissatisfaction with Aristotle as first understood by him he adopted the conception of the atom because of its definiteness, but saw later that no real principle of unity could be found in matter alone, and

[1] See Ueberweg, Erdmann, etc. [2] Noack.

that the key to the solution of the difficulty lay in the "substantial forms," or "first entelechies," of Aristotle. Thence he was (through the influence of Bruno, apparently) led directly to the notion of the spiritual atom, or the monad, though the name "monad" was not made use of until many (nearly thirty) years after the notion was adopted (*i. e.*, not till about 1697). Regarding Leibnitz's attitude towards his predecessors, it should be observed that, to employ his own expression (in the "Système de la Nature"), he "sought to reconcile Plato with Democritus, Aristotle with Descartes, the Scholastics with the Moderns, theology and morals with reason." Leibnitz's philosophy in its catholicity and conciliatory character partakes of the mind and disposition of its author.

Final Standpoint: Substance and the Monad. — The ultimate elements of being cannot, according to Leibnitz, be material atoms, since whatever is material is extended, composite, passive, and dependent, — lacking in a real principle of unity, and incapable of action or the exertion of force. A real ultimate principle of unity and activity can only be an immaterial atom, perfectly simple, self-determining, and, since the only notion of a being capable of action is that taken from the idea of our own souls, spiritual in nature. This spiritual atom (which, seemingly after the example of Bruno, Leibnitz terms the Monad), singly or in combination, is substance, or the sole underlying reality of the universe; all else is phenomenal. Substance is either simple or composite, and since so-called matter is infinitely divisible, there is an infinite number of simple substances or monads. As simple, the monad is not subject to natural generation and decay, as material bodies are; it is not created nor annihilated, except by the absolute divine will. Though, as simple, it is without parts, the monad yet has, for otherwise it would be nothing conceivable, internal qualities and aspects by which it is distinguished from every other monad. The finite monad, as finite, is ever changing; but as simple, and as an activity, it is self-

determining and changes according to a law, is a subject of development, every state being a result of preceding states, — the present being "pregnant with the future." As self-determining, it transcends the law of natural action and reaction; its relation to other monads is merely a representational or ideal one. The internal actions of the monad are, in general terms, either "perceptions," which are representations of what is external to it and its states, or "appetitions," which are its active tendencies to constant change from one perception to another. It is by its power of representation that the monad enters into accord and combination with others, forming composite substances. In every such combination there is some single monad in which it is "represented" and which forms its centre; and, conversely, every monad forms, in a single regard, the centre of a combination of monads; and substance is throughout organic in constitution; in every point of it is virtually represented every other, every point is, according to its place, a representative, reflection, or mirror of the whole universe of substance. In so far as monads are *positively* representative, they are active; in so far as they are represented in and by other monads, they are passive: so that, in each monad, activity and passivity are combined, the latter constituting a limitation of, or check upon, the former, — thus rendering the monad in so far finite. The activity of one monad corresponds to the passivity of other monads represented by it, and *vice versa*. There is, therefore, virtually a universal reciprocity and harmony of the monads, the centre or uniting principle being, as it were, situated in a single monad, the monad of monads, — God. This correspondence and harmony are not temporal and real, but pre-established, ideal, and eternal: the monads, once having received their nature in the absolute act of their creation, are pure substances and forever self-determining.

Representations. — As the monad is of a spiritual nature, a sort of soul, its acts of representation are ideas, though

not necessarily conscious ideas, as the Cartesians wrongly maintained. Ideas or acts of representation are, in fact, of three degrees, — unconscious (as in dreamless sleep or in a swoon), semiconscious, and conscious. To unconscious representation the term "perception" is applicable; to conscious representation, as conscious, the term "apperception." Monads, whose representations are wholly unconscious, are "simple monads;" those whose representations are semiconscious (as in the case of elementary memory in animals) are "souls" in a narrow sense of the term; those whose representations are fully conscious are "spirits." These distinctions are not absolute: the human soul, which is a "spirit," may sink into such a condition of lethargy as to become animal (as in dreamless sleep or in swooning). As directly implied in the foregoing, the monad rises or falls in the scale of being according to the character of its ideas.

Ideas. — Ideas may, or may not, be such as fully represent to us an object; if they do, they are clear, if not, obscure. When by means of an idea I clearly distinguish the marks of the object which it represents, the idea is distinct; when I do not, it is confused. When it fully represents the object in all its attributes and relations, it is adequate, when not, inadequate. An idea is intuitive if it *immediately* presents all elements of the conception of its object; it is merely symbolic when it does not do so. A perfect knowledge is a knowledge contained in ideas that are adequate (adequateness implying distinctness, which in turn implies clearness), and intuitive. Such knowledge presupposes such an ordered and complete analysis of conceptions that the notion sought is self-evident, its own ground or explanation. This it is completely only as perfectly simple or free from contradiction. (Leibnitz seems to have conceived, in a vague, general manner, a catalogue or table of ultimate simple notions, which, by the aid of an exact system of designations, should form the basis of an absolute *a priori* science, similar to, but more truly uni-

versal than, mathematics. He was, however, doubtful as to the possibility of such notions for us. They would be analogues in [subjective] consciousness of the supposed atom in space.) The highest principles of knowledge are, according to the foregoing, the principles of identity or contradiction (*principium contradictionis*) and of ultimate ground, or sufficient reason (*principium rationis sufficientis*). The principle of contradiction is a "formal principle," and governs the activity of pure reason, or the faculty of universal and necessary ideas, or ideas growing out of, and representing, the nature of the monad, *sub specie æternitatis*. Such are immediately apperceived by the monad in its developed consciousness of itself. By the principle of sufficient reason, we rise from given facts to principles, which are merely general and probable, and at most possess a merely moral necessity, and which constitute "regulated experience." To these two may be added a third (which is a synthesis of the two), of secondary importance: the *principium indiscernibilium*, or the principle that there are in nature no two things perfectly similar. (This is a relic of the nominalistico-realistic position once held by Leibnitz.) As to origin, — all ideas, since the monad is self-determining, arise from the soul itself: universal and necessary ideas exist in the monad eternally, either as inclinations, dispositions, impulses, or as fully apperceived forms of thought and being; and ideas of mere individual and contingent fact follow necessarily, according to the law of ground and consequent, from other ideas whether conscious or unconscious. It is true, however, even as regards universal and necessary ideas that, as the empirical psychologists have held, all ideas originate in sense, that there is nothing in intellect which was not already in sense, and that for every *conception* there must have been a *perception;* but it is also true that even in sense, intellect is present, and that reflection merely brings out of our perceptions what we, as spiritual beings, have beforehand put into them. All acts of learning are the bringing forth of new ideas out of old,

confused, and unconscious ones, the assisting of the natural tendency of unconscious ideas to become conscious.

Appetitions. — The succession of the acts of the soul is on their dynamical, as on their ideal and static, side, determined according to the laws of contiguity and sufficient reason: each effort or appetition is determined by an immediately preceding state of soul. Each effort, however, must be an idea, conscious, semiconscious, or unconscious. Unconscious appetition is the "impulse of development;" semiconscious, "instinct." Appetition risen into consciousness, or become an object of apperception, is will. Will is (of course) not free, in the sense of being arbitrary: it is free only in so far as depends on the fact that the soul is an automaton, or acts from within. The supposition of a free will, in the sense of undetermined will, has its basis in the fact that the real causes of some of our acts are unconscious. The will is more nearly free, because less restrained by an inherent passivity, the higher the order of its ideas, and the more it is determined from the higher nature of the soul. As its acts are predetermined, its goodness is never a moral goodness, but only a sort of natural perfection, the degree of the perfection corresponding to the character of the ideas dominating the will. The end of all appetition as such is some form of pleasure. In the case of semiconscious appetition, there is first a combination of impulses, giving rise to a certain (felt) tendency towards a definite idea. This, if not fully realized, is longing or fear, if realized, pleasure or pain. If there be combined with the tendency, memory or imagination, a preponderating inclination results, which decides the will. The good, or that which is will in this stage of appetition, is whatever produces pleasure or satisfaction; evil, or that which is shunned, is whatever produces pain. In higher natures, the pleasure aimed at is an enduring one, or happiness, since only such pleasure accords with the eternal nature of reason. (Hence the importance of right education, or *enlightenment*, in view of human welfare.) As reason is not

merely individual but also universal, happiness includes, besides self-satisfaction, satisfaction in the joy or perfection of another, and is (therefore) love. And the end of human action — whether of the individual or of the race — is human perfection and happiness through reason, or love, — *philanthropy*. This is the highest good. From philanthropy flows natural right. This has the three forms of justice (in the narrow sense), equity, and piety. (Three corresponding formulæ are, — *Neminem læde, suum cuique tribue, honeste vive.*) Justice in the narrow sense (*jus strictum*) is rightness in matters of exchange, — "commutative justice." Equity (*æquitas*) is the obligation to secure to every one his deserts (universal welfare), — (Aristotle's) distributive justice. Piety (*pietas*) is rightness towards the divine order of things (and presupposes a belief in God, a divine order of the world, and retribution). Positive or arbitrary right consists in the ordering of given relations, in accordance with the principles of natural right: it necessarily differs among different peoples, but is not therefore contradictory to natural right.

The External World. — As regards the representational values of ideas, it has to be said, first and in general terms, that as the highest principles of knowledge are those of contradiction and sufficient reason, phenomena in which these principles can most clearly and distinctly, or adequately, be discerned, must be regarded as the highest manifestations of being as such. The composite or bodily is, as such, without a principle of unity: it is self-contradictory; the simple or monadic is of the opposite character. Again, that which is immediately given in experience is necessarily imperfect, since it reflects imperfectly the idea of sufficient ground, points beyond itself for its explanation. So far, therefore, as these principles fail to appear in a given phenomenon, it is mere phenomenon. The phenomena of space and time — to be specific — are, as such, *merely* phenomena; space is merely a phenomenal form under which things appear in confused perception. The

explanation of mere phenomena is a purely mechanical explanation such as the Cartesians gave (of physical nature). But since real being (substance) is active force and not mere motion, the only real explanation of the external world is a dynamical one, one governed by the law of sufficient reason, or, since the principle of sufficient reason necessitates a knowledge of ultimate end and purpose, the law of final, as opposed to secondary, causes. Now, of nature as an organic force, or rather organism of forces, two special laws may be predicated: (1) as governed throughout by a single end, nature is continuous, never makes any leaps, — there can be, for example, no (Newtonian) action at a distance; (2) as substance is neither created nor destroyed, the sum of "living" (or active) *force* (*not* of *motion*, as the Cartesians maintained), or MV^2 (product of the mass by the square of the velocity), is forever the same.[1] According to the law of continuity, the universe is an infinite series of beings of infinite varieties of perfection; for, in the first place, though the existence of two or more exactly similar monads is in a manner conceivable, yet there is, in reality, no sufficient reason why there should be two or more monads precisely alike (*principium indiscernibilium*), and, in the second place, that there be no leaps in nature, every possible degree of difference must be contained in the monads collectively regarded. The real sufficient reason and principle of identity and continuity in the universe is, of course, God. As regards body and soul, each has its nature and existence, not through the other, but from a precedent being of its own kind, though there is no body without a soul, no soul without a body, and there is a constant harmony between them. This connection of body and soul is, in fact, but a special instance under the general law of pre-established harmony. In this union of body and soul we have, on

[1] According to the doctrine of the present day, the doctrine of the "Conservation of Energy," it is the *sum* of the "living," or kinetic, *and* the "dead," or potential, forces that is constant.

one side, a being that comes into and passes out of being, namely, the body, and on the other, a being that is eternal, undergoing no change except that of metamorphosis, or transformation from a lower to a higher form of existence (which must not be confounded with metempsychosis). The changes of the body, as existing, are by the law of continuity gradual only, take place as a result of the entering and leaving the body of a few particles at a given time. The soul is contained, in germ and as central monad, in the corporeal seed that develops, after the union of the sexes, into the human body.

God. — (1) By the law of the sufficient reason, we must infer the existence of an eternal, supra-mundane, omnipotent power. (2) By that of final cause, we infer the existence of an eternal supra-mundane will and end of all things. (3) From the fact that the contingent generally presupposes the necessary, we infer the existence of a single necessary being. (4) From the existence of necessary truths, we must infer that of a necessary mind as their "place," — a divine understanding. Thus we arrive at the truth of the existence of God. (5) We may further argue God's existence from the very *idea* of him, as did the Cartesians, provided the Cartesian argument be supplemented with the addition that the idea of God is not self-contradictory (since it embraces "realities" or "perfections" only). (6) A still further proof of God's existence is as follows: if God is possible, he exists; for if he were not, he would not even be possible, and nothing else would exist; but other things — for example, I myself — exist, *ergo*, etc. (Proofs 1, 2, and 3, it may be noted, are teleological proofs, proof 4 is psychological, proof 5 ontological, proof 6 partly ontological and partly teleological.) The attributes of God are not so strictly a matter of proof as is his existence. As the individual (human) soul is indestructible and maintains a separate existence after death, there is possible no universal all-absorbing being (Spinoza's God). The idea of individual consciousness

and existence is incompatible with that of consciousness and existence as a part of a universal, all-absorbing spirit. Further, the beauty and order of the universe were nought "were the variety of existence in innumerable separate souls reduced to a sabbath of quietude" in a single individual being. God is a separate individual, a distinct monad. Since he is the "place" of eternal truths, he must be conceived as possessing wisdom; since he is the source and end of all acts aiming at the better life, or perfection, he possesses goodness; since perfection includes satisfaction in the welfare or happiness of others, he is love. Since he is the sufficient reason of the existence of all things, he is power. His chief attribute is necessarily wisdom; by this, all acts of his will are determined, as the strivings of the monad are determined by its ideas. Hence the world of nature is the best possible natural world, and the world of spirit (of "grace") is the *happiest* possible; and the two are in the highest possible harmony. God is the author of evil (as well as of the good) because he is the author of that which is, by its *very nature, finite*, imperfect (it is not finite because of a will to make it such). There can, in other words, be only one perfect or infinite being. Things are good or evil, not in themselves, but in their relation to the general nature and end of existence. From this point of view, the world of finite beings must be deemed the best possible world of finite things. That all sorts of good may — in accordance with the law of continuity — be realized, there is, necessarily, inequality. This is, abstractly and metaphysically speaking, a *necessary* evil. From this necessary, metaphysical evil flow two others, — physical evil, or pain, and moral evil, or sin; inequality is necessarily felt, and there are necessarily imperfect degrees of rationality in action. But evil of whatever nature has a negative rather than a positive existence. God does not *will* it; he merely suffers it. God's *choice* of the present world among all conceivable worlds, was governed by *moral* necessity; he *created* the world accor-

ding to a "*divine mathematics.*" The world, therefore, is the harmony of the principles of freedom, or "grace," and of necessity, or nature; teleological and mechanical laws are everywhere in perfect accord. And since moral necessity is the necessity of the idea of the good, or happiness, or complete perfection of personality, the reality of happiness or personal perfection is a thing of mathematical certainty. The contemplation of the world in its perfection must result in tranquillity of mind, and yield the deepest satisfaction. Man's capacity to apprehend this perfection, a capacity which he possesses by virtue of the possession of reason and the knowledge of the eternal verities, renders him a denizen of the City of God, — of which God is sole ruler, as he is the architect of the realm of nature. In that society there is no crime without punishment, no good deed without proportionate recompense, and as complete virtue and enjoyment as are possible.

Result. — The theory of Leibnitz is a rationalistic idealism (the opposite of Berkeley's empirical idealism). Its cardinal features — and those, naturally, which have had the most important influence upon succeeding thinkers — are its conciliatory aim, its monadism, or dynamic atomism, its assertion of the spontaneity of thought (as against the sensationalistic doctrine of the mere passivity or receptivity of thought), the doctrine of pre-established harmony, its determinism and eudæmonism, its optimism, or attempted reconciliation of mechanical and teleological views of nature. The course of philosophical thought since Leibnitz, has demonstrated that his rationalism was somewhat too subjective and formal, and required to be supplemented by its opposite empiricism, as was in fact done in the system of Kant.

§ 73.

Walther Ehrenfried, Count von Tschirnhausen[1] (1651–1708). — Von Tschirnhausen was a native of Upper Lusatia.

[1] See Zeller's "Geschichte der deutschen Philosophie."

He resided for a long time in Holland and France (Paris). He took courses in mathematics and physics in the University of Leyden, and afterwards travelled very extensively, and made the acquaintance of distinguished scholars and artists. Among his friends were Spinoza, the mathematician Huyghens, and Leibnitz. He was elected member of the French Academy. His death is said to have deeply grieved Leibnitz.

Works. — Works of Tschirnhausen are, — "Medicina Mentis sive Artis inveniendi Præcepta generalia" (1689), — his chief work, — and dissertations in the Leipsic "Acta Eruditorum" and in the "Mémoires" of the Paris Academy.

Philosophy. — Tschirnhausen emphasizes four "fundamental facts" of consciousness, — (1) the consciousness of ourselves (as shown by Descartes), through which we get the idea of mind; (2) the consciousness of agreeable and painful feelings, whence we derive the idea of good and evil; (3) the consciousness of our comprehending some things and not others, whence we derive the notion of the understanding, and of the true and the false; (4) the consciousness of passivity in ourselves and of our having impressions, upon which the knowledge of external existences is based. All knowledge begins with these inwardly experienced facts: all knowledge is based on experience. To constitute real knowledge experience has to undergo a reduction to the third sort of consciousness above mentioned, *i. e.*, to terms of the understanding, or to conceptions (*rationalia*); which must be discriminated from perceptions (*sensibilia*) and from imaginations (*imaginabilia*). From the simplest conceptions expressed in genetic definitions — or definitions explaining the origin of the thing defined (for, as Spinoza showed, all things must flow from a single primal nature) — must be deduced, by analysis, axioms; by synthesis, theorems, etc. That is to say, knowledge is a product of experience transformed by the application of "mathematical" method, or mathematics verified by expe-

rience. The method of knowledge is the same for all branches of knowledge. According to subject-matter, knowledge is knowledge either of *sensibilia* (and *imaginabilia*), *rationalia*, or *realia*. The ultimate elements of *sensibilia* are the solid and the fluid, of *rationalia* the point and the line, of *realia*, extension and motion. The science of *realia* is physics, which, naturally, is the highest of the sciences; the science of *rationalia* is mathematics; of the passions produced in us by *sensibilia* and *imaginabilia* and of the will as being subject to or free from these passions, is ethics. The knowledge of *realia* delivers us from the bondage of *sensibilia* and *imaginabilia:* physics is the basis of ethics. The science of science in general, the philosophy of method (the only branch of philosophy treated *in extenso* by Tschirnhausen) is *philosophia prima* (expounded in "Medicina mentis").—Tschirnhausen is a forerunner, as regards theory of philosophic method, of Wolff.

§ 74.

Samuel Puffendorf[1] (1632–1694). — Puffendorf, born in Saxony, began the study of theology at Leipsic, but abandoned it for that of law, which he studied chiefly at Jena. In 1661 he accepted the chair of the Law of Nature and Nations at Heidelberg, — a chair created for him. He was afterwards, at different times, professor in the University of Lund (Sweden), historiographer-royal of Sweden, historiographer and privy-councillor of Frederick III. of Brandenburg. A recent writer speaks of him as one to whom "scant justice has been done," and as at once, "philosopher, lawyer, economist, historian, and even statesman."

Works. — Works of Puffendorf are, — "Elementa Jurisprudentiæ Universalis Libri duo" (*circa* 1660), "De Statu Imperii Germanici" (1667), "De Jure Naturæ Gentium" (1692), and "De Officio Hominis et Civis" (1695).

Philosophy. — Puffendorf bases right on the divine law or

[1] Hallam's "Literature of Europe," Part IV. pp. 165–171; see also Zeller and Erdmann.

will, but maintains, nevertheless, that it may be discovered by reason, and that moral science is as certain as mathematical. "Common consent" and "self-interest" are insufficient as bases for a doctrine of right. Society takes its rise from the "nature of man, his wants, his powers of doing mischief to others," and hence it may be said that the source of law is self-preservation. On the other hand, it is a duty to live for the common good. In fact, besides duties to ourselves there are duties to others and duties to God. Among the minor principles laid down by Puffendorf are, — that free consent and knowledge of the whole subject are required for the validity of a promise, that there can be no obligation without a corresponding right, that veracity is not always obligatory, that property is grounded in an express or tacit contract of mankind, made while all was yet in common, that each should possess a separate portion, that the right of the husband to rule the wife is grounded in a tacit or express promise of obedience, that the power of a master over his servant is not by nature nor by the law of war, but originally by a contract founded on necessity. The ruler of the State derives his authority, not from a divine source, but from the State-compact. Resistance to authority is justifiable only in certain very special instances. Tolerance should be shown in religion except as regards non-belief in God and providence. — Puffendorf is a follower — though also a critic — of Hobbes and Grotius. He is a forerunner of Wolff in the theory of law.

§ 75.

Christian Thomasius[1] (1655–1728). — Thomasius was an anti-theological, anti-Scholastic, and in general anti-conservative, professor of law who is sometimes styled the father of the German Illumination (to be spoken of hereafter). He received from his father and in Leipsic University a thorough training in philosophy and its history, and

[1] See Erdmann's "Grundriss der Geschichte der Philosophie;" also Zeller's "Geschichte der deutschen Philosophie."

took up law, at first following Grotius and Puffendorf. He sympathized with the French in their breach with the past, and both advocated and practised strenuously the avoidance of pedantry and the use of the German tongue as a vehicle of learned communication in the universities. He acquired great popularity and influence, and though driven from his professorship at Leipsic, and forbidden to lecture or write, because of his radicalism, he received an appointment at Halle as "second," and then as "first" professor of law, and as rector of the university, — in the founding of which he had been instrumental. He seems to have been a supporter and popularizer of other men's ideas rather than a profound originator, and an Illuminationist rather than a philosopher. He may be treated as, so to say, a detheologizer and naturalizer of Scholastic philosophic thought, and a forerunner of Wolff.

Works. — The principal work of Thomasius is entitled "Fundamenta Juris Naturæ et Gentium ex Sensu Communi deducta" (1705). Other works are "Institutiones Jurisprudentiæ" (1688), "Introductio ad Philosophiam aulicam" (1688), — an attack on Scholastic logic.

Philosophy. — For Thomasius, philosophy is a non-technical, non-speculative, readily intelligible theory of human existence on its human side as such. He expressly and absolutely separates it as wisdom of this world from theology as "God-wisdom," and as expressly and absolutely attempts to avoid all syllogizing, all use of technical phraseology. He will avoid all prejudice and sectarianism; he will be a common-sense, eclectic philosopher. As to subject-matter and end, philosophy is to him that branch of human knowledge which teaches man how he should live happily, *i. e.*, in inward and outward peace, in this world. Philosophy thus practically reduces itself, with Thomasius, to ethics. The Thomasian ethics has a certain basis in (Lockean) psychology. The norm of action is found in a happy commingling of certain ground-impulses in human nature, — as desire of bodily enjoyment, property, indepen-

dence, honor, and rule over others. Out of the relation of those to external influences spring the affects or passive conditions of the soul, of which there are the two general classes, hope and fear. Men are naturally filled with prejudice, ruled by passion, and in constant strife. A few have in themselves the true norm of action, and are capable of being teachers and rulers. By the principles of right (in the broad sense) alone are they taught to do that which will tend to freedom from prejudice, to self-dependence in theoretical matters, to inward and outward peace in practical, and so to the longest and happiest life for man. These principles are: (1) Do not to others what you would not have done to yourself; (2) Do to others what you would have done to yourself; (3) Do to yourself what you would have others do to you. The first of these is the principle of all compulsory or perfect duties, is the sum and substance of justice (*justum*), or right in the narrow sense, and has reference to the preservation of external peace. The second is the principle of the fitting (*decorum*), and has reference to attainment of external peace through benevolence. The third is the principle of morals (*honestum*), and relates to the attainment of inner peace. Duties growing out of the second and third principles are imperfect, because non-compulsory. Duties may be divided into duties to God, to ourselves, and to others. But since the human and the divine have nothing to do with one another, only such duties to God are subjects of philosophy as are conditional to the fulfilment of duties to ourselves and to others. The office of the State is the preservation of external peace, external right, among religious societies; otherwise the State is separate from religion. This relation of Church and State is the principle of what is termed by Thomasius his Territorial System. In religion he sympathized with the Pietists, and advocated mutual tolerance of sects.

§ 76.

Christian Wolff (1679–1754). — Christian Wolff was the son of a tanner of Breslau, who intended him for a theologian. He studied at a gymnasium in Breslau and at the University of Jena. Though distinguished at the gymnasium for attainments in theology, at the university he gave his attention rather to mathematics, physics, and philosophy, Scholastic and anti-Scholastic. At the gymnasium he read Descartes' works and Tschirnhausen's "Medicina Mentis," and when, leaving Jena (1699), he went to Leipsic to take his master's degree, he habilitated with a thesis, written in the Cartesian spirit, on "The Universal Philosophy, treated by the Mathematical Method." At Leipsic, he early prepared a dissertation on Universal Practical Philosophy, the fruit of a study of the works of Grotius and Puffendorf, to whom his practical philosophy owed much. This dissertation gained him the recognition of Leibnitz, whose views he soon adopted, and a privat-docentship in the University of Leipsic, his lectures being on the subjects of mathematics and philosophy. Through Leibnitz's influence he was, in 1707, appointed Professor of Mathematics in the University of Halle; he lectured also on physics and, later, on philosophy. By the easy intelligibility and the general impressiveness of his lectures he gained great popularity as a teacher; his exposition was lucid and methodical, and he spoke in German instead of Latin, and with great fluency and naturalness of manner. But by rationalistic views in theology he excited the hostility of Pietistic colleagues, who, bringing undue influence to bear with the king against him, procured a cabinet decree depriving him of his position, banishing him from the domain on pain of death by the halter, and proscribing his works (1723). Settling at the University of Marburg, whence he had previously received a call to a professorship, he lectured there,

[1] Zeller, "Geschichte der deutschen Philosophie;" Erdmann, "Grundriss der Geschichte der Philosophie;" Noack; etc.

with even greater applause than at Halle, until 1740. In the mean time his philosophy became universally known, he was elected member of the French Academy, and won the admiration of Frederick the Great, successor to Frederick William, who had driven him from Halle, and his writings were reported upon favorably by a commission appointed to examine them; and in 1740 he was restored to his former university, and afterwards honored in various ways, dying while professor, Vice-Chancellor of the University, privy councillor, etc. He did not regain his former popularity as lecturer, — in fact, lectured to empty benches; but his philosophy was at the time of his death, and had long been, the ruling philosophy in Germany.

Works. — Wolff's earlier works are in German, his later in Latin. His most important German work is entitled, "Vernünftige Gedanken von Gott, der Welt und der Seele des Menschen; auch aller Dinge überhaupt" ("Rational Conceptions on God, the World, and the Soul of Man; also All Things in General"). (The first two words of this title occur in the titles of most of Wolff's German works; they represent the spirit of this system.) Titles of some of his Latin works (which are largely restatements in more scientific form of the German works) are: "Philosophia Rationalis sive Logica" (1728), "Philosophia Prima sive Ontologia" (1729), "Cosmologia Generalis" (1731), "Psychologia Empirica" (1732), "Psychologia Rationalis" (1734), "Theologia Naturalis" (1736–1737), "Philosophia Practica Universalis" (1738–1739).

Philosophy: Stand-point and Method. — Wolff, as a true disciple of Tschirnhausen and of Thomasius, lays emphasis upon two things as prime requisites of philosophy; *viz.*, precision and intelligibility of method, and utility of end or result. By philosophy Wolff understands the science of universal conceptions, — the science which seeks to demonstrate how the *possible*, or universally *conceivable*, can *be in reality*. Its method is necessarily an *a priori* method: philosophy begins with pure conceptions, whatever their

origin, and merely draws from them that, and only that, which is contained in them. This method, like the geometrical, is not only *a priori*, but demonstrative and certain. Philosophy, therefore, though engaged with truth in general, is quite distinct from empirical science, which, instead of being *a priori*, necessary, and certain, is *a posteriori*, contingent, and uncertain.

The Divisions of Philosophy. — As there is in man a faculty of cognition (*facultas cognoscitiva*) and a faculty of appetition or volition (*facultas appetitiva*), philosophy is theoretical philosophy (*philosophia theoretica sive metaphysica*) and practical philosophy (*philosophia practica*). Introductory to theoretical philosophy, and to a certain extent forming a part of it, is the science of logic, having a "theoretical" part, treating (in Aristotelian manner) of the principles of formal thought; and a practical part, treating (more in the modern manner) of the grounds, limits, and forms of knowledge, and of the practical uses of logical method. The material sciences embraced under the term "theoretical philosophy" are ontology, cosmology, psychology, natural theology; under the term "practical philosophy" universal practical philosophy, ethics, economics, politics.

Ontology. — Ontology is the theory of being in general, and its categories and kinds. This is *philosophia prima*. Its highest principles are those of contradiction and sufficient reason. The latter depends on the former, as is proved in the following manner: "Suppose A and B to be precisely alike. If it is possible that there can be anything which has not a sufficient reason, then a change may take place in A which does not in B if B be substituted for A. But since from the very fact that A and B are precisely alike, it follows, if we assume that the principle of sufficient reason is not a valid principle, that A and B are not precisely alike, and since, on the contrary, it is impossible that a thing can both be and not be, the principle in question must be indisputably correct: everything has its sufficient

reason for being."[1] Leibnitz incorrectly assumed that these two principles were independent of one another, and that the latter was axiomatic. The main problem of philosophy, — to show how the possible can be actual, — is solved by the conception of determination, the actual being that which combines into one definite or determinate nature many possible distinctions, or, rather, being that determinate nature itself. The possible is the non-contradictory, and the sufficient reason of the determinate being is a certain determinant (or cause, in the Aristotelian sense). If the detorminant be in the determinate thing itself, that thing is absolutely necessary; if in another thing, contingently, or hypothetically, necessary. Determinations or qualities of a thing following from its own nature are attributes; those not so following, are modes. The highest reality is that which is most determinate in nature, and *vice versa*. The attributes of the actual may be termed realities. Truth is formal order or consistence. Being is either simple or composite. Simple being is being without extension, time, space, motion, form, becoming, etc., which characterize composite being only. Simple beings are monads, metaphysical points, eternal and completely individual, or distinct in themselves and from one another; they alone are true substances. They are subject to no real change: that which belongs to them is always present in them. They are active, instead of passive, are centres of determinate and determining force. A *portion* of them only (says Wolff in his later philosophizing) have the faculty of ideation, the rest are merely natural atoms (*atomi naturæ*). (This is, of course, an important departure from the doctrine of Leibnitz.) To composite beings belong all those attributes above denied to simple beings, — extension, time, space, motion, form, becoming, etc. Extension is the coexistence of different things external to one another. Things co-existent are contemporaneous; successive are

[1] See "Vernünftige Gedanken von Gott, der Welt u. der Seele," etc., near the beginning.

things of which the ending of one must precede the beginning of another. Time is order of succession in a constant series; space, order of co-existence of contemporaneous things. Force is the sufficient reason of activity, etc. The composite is material, temporal, and a plurality, subject to real change or succession of qualities: it is finite.

Cosmology. — The world is a machine, — a plurality or multiplicity of interrelated bodies, the changes of which occur in accordance with the laws of motion. The ultimate elements of bodies are simple substances, monads. Intermediate in nature between these and bodies are certain secondary elements of bodies composed of simple substances. These are termed corpuscles (some of them being "primitive," some "derivative" corpuscles), and are, for empirical science, ultimate elements. They are not sensible, though bodily. The philosophy of these is *physics;* that of the real, ultimate elements *universal* or *transcendental cosmology*. The latter is theoretically prior to the former. Physics is partly empirical science, partly dogmatic or mathematical science. Dogmatic physics may also be termed the *science of nature.* It begins with the corpuscles and their motion, and mathematically deduces bodies from them, *i. e.*, from the *corpuscula derivitiva.* Bodies, and even the corpuscles, being phenomenal, or objects of confused ideas, no *strictly mechanical* derivation of them from ultimate substances is possible; all explanation is necessarily physical or teleological, *i. e.*, an explanation of phenomena by their relations to other phenomena or to certain *a priori* ends in nature. Nature is an organic whole; what takes place in any portion or at any given time has its sufficient reason in the given whole. As the ultimate elements are, in part at least, natural atoms, the harmony of parts is due, not to a representative faculty, but to correspondent passive and active principles in nature; *viz.*, inertia and moving force (another deviation from Leibnitz). Different kinds of force are required for the explanation of different classes of phenomena. The sum

of "living force" is constant. The laws of nature are not unconditionally necessary; above them are unconditional ends: they are subject to the laws of contradiction and sufficient reason. Nature is accordingly, in a sense, contingent, and miracles are possible. When a miracle occurs, the succeeding order of nature is, however, different from the foregoing, unless the peculiar consequence of the miracle be annulled by a further miracle. As an instance in proof of a teleological order in nature may be cited the fact that the light of the stars serves as a guiding light for men at night.

Psychology. — The fact of consciousness is a proof of a soul, and the unity of thought is demonstrative evidence of the soul's simplicity, immateriality, pre-existence, immortality, etc. The essence of the soul is a power of representation (*vis representativa*), the various faculties, so-called, being but modifications, or forms, of this. This power changes with surroundings, external and internal. The chief forms of its activity are cognition (*vis cognoscitiva*) and desire (*vis appetitiva*). The faculty of cognition has two forms, — a lower, having to do with confused ideas, and comprising sensation, imagination, and memory; and a higher, having to do with clear and distinct ideas, and comprising attention, understanding, and reason. All ideas originate in sensations, which are copies, or representations, of sensible things in the soul. The senses apprehend form, magnitude, position, motion, but not the ultimate elements, nor even the corpuscles. Clearness of ideas in perception depends on velocity of motion in the nerves; distinctness, on its distribution among fibres of nerves; etc. The movements in the brain corresponding to imagination are slower than those corresponding to sensation. Ideas are recalled in the imagination by others with which they have been associated, because they once constituted with those others a single state of mind. The peculiar function of the higher faculty of knowledge, is reflection, which includes attention, comparison, discrimination; in its highest form, reason, this

is the perception of the connection between universal truths, or *a priori* demonstration. Since knowledge originates in experience, reason is in the last analysis not absolutely *pure*, but points back to the senses. As *vis representativa*, the soul has an inherent tendency to change continually its condition. This, accompanied by the idea of the object of the tendency, is desire (*vis appetitiva*). The idea of a physical object carries with it a tendency to motion. The motive forces of desire are the cognition of perfection and that of imperfection, or pleasure and pain. Whatever improves our condition, *i. e.*, makes it more nearly perfect, is good, *i. e.*, an object of desire; the opposite is evil. A confused idea of a good is appetite, a clear one, will. All volition has its sufficient reason in ideas, acting as motives, *i. e.*, is determined, not free. The soul progresses to ever greater perfection. The union of body and soul is explicable only on the hypothesis of a pre-established harmony between them. The *a priori* science of the soul is *rational psychology;* the *a posteriori* is *empirical psychology;* the former presupposes the latter and what necessarily flows therefrom.

Natural Theology. — Natural or rational theology must be strictly distinguished from sacred theology; it has nothing whatever to do with the mysteries of faith, but merely ascertains the rational conception of God's being and attributes. The rational proofs of God's existence are of two classes (and natural theology has two corresponding parts), — proofs from the consideration of the world, or *a posteriori* proofs, and proof from the idea of the most perfect being, *a priori* proof. The contingency of the world is a proof of the fact of a necessary being. The idea of the most perfect being necessarily includes among its "realities" that of existence. Our notion of God's nature is determined by the laws of our thought, — by the fact that we must judge of it by its consequences in the world in which we are. God, as the source and harmony of all things, must be conceived as having clear and distinct ideas of all existences,

i. e., as omniscient. His power is infinite within the sphere of the possible; *i. e.*, he is limited by the eternally finite nature of that which he creates. Otherwise, he is free. He might have existed eternally without creating the world, had he seen fit. As he is perfect, the world is the best of all possible worlds. Though not created expressly for man, human ends are embraced in its plan. (Daylight assists the transaction of the daily business of men; by the help of the sun, manufacture of dials is possible, the meridian may be ascertained, etc.; in the night, men may sleep or catch birds or fishes for their use, etc.) Without man there would be no recognition of the glory of God as the Creator.

Practical Philosophy. — Human nature contains in itself the foundation and end of all morality; the highest, indeed the only, law of which is, Do that which renders thee and thy condition more perfect; omit to do that which renders thee and thy condition less perfect. "Perfection" in action has regard not merely to the doer's intent, but also to the consequences of the action; it includes happiness, or the approval of conscience or reason. The will must not be determined by hope or fear, but by the understanding alone, the enlightenment and education of which is of supreme importance to human welfare. The highest good (*beatitudo philosophica*) is continual progress towards higher perfection. Duties are duties to ourselves, to others, and to God, flowing, respectively, from our relation to our perfection as individuals, our dependence upon one another, and our knowledge of divine perfection as reflected in nature. The value of external service to God depends solely upon its moral influence on man, its moral utility. Duty is the foundation of natural right, which is the same for all men. According as right is or is not a matter of compulsion, it is "perfect" or "imperfect." The obligation of a person to perform a benevolent action is an obligation which no one can be compelled by another to fulfil, and is, as a right, "imperfect." The subject of natural law has

four branches, — duties, property, general social life, and the State. Society rests on the two facts of the obligation to promote as much as possible the perfection of self and others, and of an express or a tacit contract which subjects the wills of some to those of others. Marriage and the parental relation are of the nature of a contract regarding the begetting, preservation, education of offspring. The only true marriage is monogamic marriage. The grounds for divorce are adultery, malicious abandonment, and the like. Slavery is permissible under certain circumstances, *e. g.*, when the slave has deliberately chosen it. The State rests upon a contract implied in the fact that the lower organism (the family) is not equal to supplying the needs and comforts of life and defending men against injury. The State can rightfully interfere with the natural liberty of the individual only for the common good. The voice of the people is the ultimate source of authority. Passive resistance to authority is always justifiable when authority conflicts with *natural* right; *active* resistance is proper only when rights reserved by the constitution of a State are infringed. Rulers stand in a relation to subjects similar to that of parents to children. It is incumbent upon the State to care for the welfare of its subjects, even in the minutest details; it must care for all forms and means of education, — schools, academies, universities, churches, theatres, books, etc.; for all charitable interests, including the provision of asylums for the poor and for orphans, the education of physicians, for all economic interests, fostering agriculture, determining relation of industries; for the general habits of eating, drinking, amusement, recreation, refreshment, etc. Atheists and deists must be expatriated and denied honorable burial. The object of punishment is correction of criminals and prevention of crime, — light punishment inflicted with strictness is better than a severer one not so inflicted. Merely an extension of natural right or law is the right or law of nations. The State as a person enters into relations similar to those into which individual persons

enter. There is a necessary and natural right and a positive right among States as among those social organisms entering into the make-up of a State.

Result. — The philosophy of Wolff is very largely merely a formulation and systematization of what had been taught by Leibnitz, as is sufficiently obvious. But (as Wolff himself claimed) it possesses, in relation to that of Leibnitz, a certain independence and originality, and constitutes in certain scientific regards an advance upon that. The deviations of the philosophy of Wolff from that of Leibnitz were such as to add determinateness, solidity, and comprehensiveness to philosophy, in at least a formal regard, — to increase the objectivity of its results. Besides the deviations already noted, may be mentioned the conscientious application of a scientific method, the attempt to determine and deduce the categories of, at least, formal thought, the limiting of the range of miracle, the separation of morals from dogma, the broadening of the scope of philosophy so that its content became coextensive with all possible objects of knowledge, and, finally, the "teaching of philosophy to speak German."[1] Wolff, like Melanchthon, taught the "whole German world" philosophy, and has exercised a great influence in modern thinking. Among his pupils was even Kant himself. He propounded no new great principle, but he reckoned squarely with those extant, and so in a manner set philosophy on a new footing. He deserves, it would seem, somewhat more attention from students of the history of philosophy than he usually receives.

§ 77.

Wolffians and Anti-Wolffians.[2] — The philosophy of Wolff, for reasons that are perhaps obvious, found numerous adherents and also met with considerable opposition. Among the followers of Wolff perhaps the most

[1] Schwegler, "Handbook of the History of Philosophy."

[2] See Zeller, "Geschichte der deutschen Philosophie;" Noack; Erdmann.

important were Georg Bernhard Bilfinger (1693–1750), Alexander Gottlieb Baumgarten (1714–1762), Georg Friedrich Meier (1718–1777), Johann Heinrich Lambert (1728–1777). Of the opponents were Franz Buddeus (1667–1729), Andreas Rüdiger (1673–1731), Christian August Crusius (1712–1776), Joachim Georg Daries (1714–1792). — Bilfinger, professor in Tübingen and Petersburg, follows Leibnitz in his conciliatory attitude towards theological dogma ; otherwise he is a Wolffian. He distinguishes a mediate as well as an immediate representation in the monads, regards every psychological change as a passing from an idea to a resulting appetition, or *vice versa*, points out the necessity for a logic of the imagination (as well as of the understanding, which alone Wolff's logic was). — Baumgarten is especially noted as the author of the first modern "system" of æsthetics (a logic of the imagination which Bilfinger had desiderated). By *Æsthetics* he understands the science of the lower, or sensible, faculties of the mind. The subject of æsthetics is, according to Baumgarten, the perfection of sensible phenomena as such, or the harmony of the manifold in phenomena. But this is the beautiful: beauty is, precisely, perfection as apprehended by the senses (for, as Leibnitz pointed out, the sensible apprehension of perfection affords pleasure). Baumgarten's "Æsthetics" relates chiefly to poetry,— belongs to the class of works of which Aristotle's "Poetic" is the earliest extant representative. It is said to have been made by Kant the basis of his lectures on the subject it treats. Baumgarten expounded (with great practical success) Wolff's doctrines as a whole, out-Wolffing Wolff in the matter of logical analysis and elaborate terminology. His text-books were very popular; Kant was distinctly influenced by them. — Meier was also a successful writer on æsthetics and the Wolffian philosophy. Meier emphasized "common-sense" and practicality as the primary requisites in a sound philosophy, was a Lockean in psychology, attempted a reconciliation of the imperfection of the

world and the perfection of God through a distinction between an essential and external perfection in God, the former being absolute and unchangeable. Meier's works were employed by Kant similarly as were Baumgarten's.—Lambert —a personal friend of Kant— attempted the application of Wolffian doctrines and methods to Lockean psychology. In a work entitled the "New Organon," he deals with the questions whether the human understanding can attain to certain knowledge of the ultimate truth, whether it can avoid confusing truth and error, whether speech is really a help or a hindrance to the attainment of knowledge, whether the understanding must not always be blinded by illusion or not. His most important discussions are those relating to the last of these questions. Lambert divides illusions into physical illusions (illusions of the senses), psychological illusions (illusions of consciousness, imagination, memory), moral illusions (illusions of feeling), pathological illusions (illusions due to the condition of the nerves). Lambert was highly esteemed personally and as a philosopher by Kant, and is regarded as occupying an intermediate position between Wolff and Kant.—The Anti-Wolffians objected, some more, others less, strongly to the (supposed) fatalism involved in the principle of sufficient reason, determinism, pre-established harmony, the mechanical explanation of nature, and optimism; conceived the criterion of truth to be, not the certainty of the mathematico-logical understanding, but liveliness of feeling, supernatural illumination (Buddeus), immediate thought-necessity (Crusius), or a high degree of probability (Rüdiger); treated reason as subordinate to revelation, and moral activity as obedience to the (revealed) will of God. Buddeus was a syncretist, including in his "system" superstitions, church-dogmas, etc. According to Rüdiger, all things, even mind and God, have a material origin,—the soul is extended, though simple. Crusius held the same view. He criticised the ontological proof of God's existence (as did after him Kant, an admirer of his), as con-

founding the existence of God with the thought of that existence. His proofs of God's existence were those of "sufficient cause" (not the "fatalistic" "sufficient reason" of Leibnitz and Wolff) and the "contingency of the world." The highest principle of philosophy (according to Crusius) is that of "conceivability," which is stated,— That which is not conceivable is false; what cannot be conceived as false is true. The immortality of the soul is not proved from its nature as a substance, but from the fact that it (immortality) alone unites desert and happiness (compare Kant). Daries, who is less hostile towards Wolff, affirms contingency and imperfection to be consequences of freedom in God, — or of a free understanding and will, as distinguished from a necessary understanding and will in God, — not of the character of the finite as such. Our duties grow out of natural ends recognized as dependent on the will of God.

§ 78.

The French "Illumination." — The English philosophy of the beginning of the eighteenth century, — Deism, Lockism, the Newtonian Physics, etc., — transplanted to France by Voltaire, Montesquieu, and English works that went across the Channel, found in a prevailing revolt against ecclesiastical and political tyranny a hospitable soil and bore abundantly its peculiar fruit. The new epoch produced by it in French thinking is commonly known in the history of philosophy as the "French Illumination." The names of men to be spoken of in this connection are those of Voltaire, Montesquieu, Rousseau, who may be classed as Deists; Condillac and De Tracy, sensationalists; Bonnet, Robinet, and Diderot, semi-materialists; D'Holbach, Lamettrie, Helvétius, Cabanis, pure materialists. Perhaps the most important contribution to philosophy as a science made by these "*philosophers*" was that of the Holbachian materialism.

§ 79.

François Marie Arouet de Voltaire[1] (1694–1778). — Voltaire was educated at a Jesuit college in Paris. He took up the profession of letters, and soon became a popular idol. On account of an "affair of honor" he was obliged to leave France, and he spent three years in England. In England he came under the influence of Newtonian and Deistic doctrines. He returned to France a Newtonian, a Deist, and an admirer of the English constitution. A published work of his, Deistical in sentiment, caused his banishment. He went to Holland. On the removal of the ban in 1735 he returned to France, and took up his abode with a certain Madame du Châtelet in Lorraine as her preceptor. At the invitation of Frederick the Great of Prussia, himself a "freethinker," Voltaire spent three years at the Prussian court. He quarrelled with Frederick, and went to Switzerland to reside. On a visit to Paris in 1778 he was received with great enthusiasm. His death occurred shortly afterwards. The clergy refused burial to his body in Paris: his life (an industrious one) had been largely spent in antagonizing ecclesiastical bigotry and intolerance.

Works. — Voltaire's philosophy (such as it is) is to be found chiefly in the following-named works: "Lettres philosophiques sur les Anglais" (1734), "Examen important de my lord Bolingbroke" (1736), "Élémens de la Philosophie de Newton," etc. (1738), "La Métaphysique de Newton, ou Parallel des Sentimens de Newton et de Leibnitz" (1740), — ridicules the Leibnitzian optimism, — "Candide, ou sur l'Optimisme" (1757), "Dictionnaire Philosophique" (1764), "Le Philosophe ignorant" (1767), — probably contains the best exposition of his general world-view, — "Réponse au 'Système de la Nature'" (1772), — an intended refutation of atheism.

Philosophy. — The philosophy of Voltaire is that of Locke and of the English Deists. He opposes (with ridicule) the

[1] See Franck and Noack; Works of Voltaire.

doctrine of "innate ideas," — the "mind has to be sent to school to learn what it already knows" if that doctrine be true. Not ideas, but reason, is innate: "God gave all men the same reason, and by this, when it develops, men perceive the same necessary principles, just as he has given them organs which, when they have the degree of their energy, perpetuate necessarily and in the same manner the race of the Scythian and that of the Egyptian." Voltaire so far dissents from Locke's polemic against the notion of universally prevalent ideas as to maintain that the idea or instinct of justice is universal. Metaphysics (in any real sense) he repudiates as idle curiosity, ruinous to common-sense and morality. Common-sense and the dictates of common morality are a sufficient basis of theoretical belief, which, after all, has its end, not in itself, but in action. Voltaire contends, however, in his fashion, for belief in God, freedom, and immortality. The denier of God is, he says, refuted with the single "Vous existez, donc il y a un Dieu" ("You exist, therefore there is a God"). The supposition of a God is "so convenient, so *necessary*, indeed (the idea of justice and the manifestation of design in the world require it), that man would have to invent a God if he did not exist." We are necessarily and forever ignorant of God's nature; one must *be* God to know God. We must, as no society can exist without justice, suppose him to be just. It is of course irrational to "believe in a God who promenades in a garden, talks, becomes man, and dies on a cross." — Liberty is the power to think or not to think of a thing, to move or not to move, at will. Proof of liberty is found in the fact of an irresistible feeling of it, the fact that the opponents of liberty admit the existence of this feeling and give the lie to their professed opinions by their conduct, and that if we are not free, we must conceive God as acting unworthily of the Supreme Being in so creating us as that we should be deceived on this point. Our passions do not disprove liberty any more than (some) disease does (all) health: the will is not necessarily determined

by what the understanding thinks, since will and understanding are not two separate entities, acting, as it were, physically on one another, but are activities of one and the same being, who both judges and wills (in other words, moral necessity must not be confounded with physical); the prevision of God does not necessarily conflict with liberty, since the mere knowledge of an action before it is performed does not differ from the knowledge of it after it is performed; God's prevision may be conceived as like that of one who knows beforehand what course of action will in a given instance be pursued by a person whose character he knows; man's freedom does not interfere with God's infinite power, since it is the effect of that; we may be conceived as possessing liberty from God as the general, in an action, does from a king who has given him *carte blanche*. Liberty is not the liberty of indifference: if it were, we should be inferior to idiots, imbeciles, and brutes.

Result. — Voltaire is one of the founders of the "*Éclaircissement*," or (French) "Illumination." He exercised a very wide influence upon popular thinking, and (without being himself really a philosopher in the strict sense of the term) made certain philosophical notions universal commonplaces of thought among men of the eighteenth and even of the nineteenth century. "We are all," in the words of Professor Du Bois Reymond, "more or less Voltairians."

§ 80.

Charles de Secondat, Baron de la Brède et de Montesquieu[1] (1689–1755). — Montesquieu, born near Bordeaux, received thorough early training, studied law, became a counsellor in and was for twelve years president of the provincial Parliament of Bordeaux. He resigned his position in 1726 to devote himself to philosophical, historical, and political studies. He was elected member of the Bordeaux Academy, and contributed to its Proceedings. In 1728 he

[1] See Franck and Noack.

was elected member of the French Academy, and in the same year began a tour through "Europe to observe men, things, and constitutions." He spent a year in Italy, and eighteen months in England, becoming possessed with a decided admiration for English character and customs and the English Constitution, — an admiration which had its effect in a changed manner of living, as well as in certain doctrines contained in his chief work, written a few years after his return to France.

Works. — The philosophical works by which Montesquieu is known are: "Lettres Persanes" (1720), — a satirical criticism of certain social, political, ecclesiastical (and literary) conditions in France at the beginning of the eighteenth century; "Considérations sur les Causes de la Grandeur et la Décadence des Romains" (1734), "L'Esprit des Lois: ou du Rapport que les Lois doivent avoir avec la Constitution de chaque Gouvernment, les Mœurs, le Climat, la Religion, le Commerce," etc. (1748). These works received a wide reading, and exercised a powerful influence on popular opinion, — "L'Esprit des Lois" becoming one of the recognized causes of the French Revolution.

Philosophy. — "All things," says Montesquieu, "have their laws: divinity has its laws; the material world its laws; superhuman intelligences their laws; animals their laws, man his laws." Laws are the relations existing between primordial reason and the various sorts of being, and the relations of these beings to one another. With law there naturally co-exists freedom: God does not foreknow all the individual acts of self-determination. But his freedom, though "ruling as a king within its sphere," obeys the larger sphere "like a slave." As the laws of the universe as a whole have their source in the primordial reason, so human laws originate in human reason, are the self-determinations of that reason. They are, ideally, adapted to the particular people for whom they exist: adapted to the general nature of things, on the one hand, and to the diversity of existing conditions, on the other; they are not arbitrary,

artificial, Utopian. There are, in the nature of the case, three most general species of government, — the republic, the monarchy, and the despotism. For the security of the State it is requisite that the citizens have a grade of elevation corresponding to the nature of the government; private virtue is the fundamental principle of action in popular States: in aristocracies it is less necessary; in a monarchy honor, in a despotism terror, occupies the place of virtue. The principle of the republic becomes corrupt not only when the spirit of equality is lost, but when it becomes extreme; monarchy is destroyed by the enfeeblement of intermediary powers (as the nobility); the despotic government is already corrupt. Political liberty consists, not in power to do what one likes, but only in the power to do what one *should* like: it is the right to do all that the laws permit. The powers of the government are three, — legislative, judicial, and executive; and security in government requires that these powers be in distinct hands, or, at least, that the judicial be kept entirely independent of both executive and legislative powers. The abuse of power cannot always be prevented, even in the most moderated States: it must set limits to itself. Between laws and the Christian religion there is such connection that "that which seems to have no other object than the felicity of the other life constitutes our happiness also in this."

§ 81.

Jean Jacques Rousseau[1] (1712–1778). — Rousseau was early left without parents' care, and received but little primary training from any source. He read Plutarch and romances. After failures to obtain a practical foot-hold in the world, and some wanderings and escapades, he was taken into the house of a Madame de Warens, who felt interest enough in him to have his education looked after and to become mistress to him. He studied Latin, mathematics, music, and the Port Royal logic; and read the works of Locke,

[1] Noack; "Encyclopædia Britannica;" Franck.

Leibnitz, Descartes, and Malebranche. Losing Madame de Warens' favor, he went to Lyons, and in 1741 to Paris. He at first copied and composed music, afterwards held for a time the post of private secretary to the ambassador to Venice, got into the society of the celebrated *Encyclopédistes*, contributed to the "Encyclopédie," and won fame by taking a prize offered by the Academy of Dijon for the best essay on the "Effect of the Progress of Civilization on Morals" (1749). His literary success brought him offers of favor, of which, however, he did not avail himself to any great extent. He copied music, wrote operettas, comedies, novels, and essays. After a number of years of both popularity and prosperity (a Madame d'Épinay caused to be built for him a fine residence in the valley of Montmorency, near Paris), Rousseau fell under condemnation because of alleged Deism, immorality, and what-not in his writings, and was, by his enemies, driven about from place to place. He found refuge finally in England, under the auspices of Hume, in the year 1765. Quarrelling with his benefactor, he returned to France the next year. He was permitted to return to Paris on condition that he would not publish anything on religion or the government. He gained a livelihood for himself and a woman with whom he had informally united himself some years before but did not until now marry, by copying music. Stories of poverty, domestic infelicity, sorrow, and sickness are related of him at this time. In 1778 he determined to accept an oft-repeated invitation of a certain Marquis de Girardin to live on an estate of his near Paris. He died suddenly (by his own hand, some have imagined) a few months after accepting the invitation. His importance in the history of philosophy seems to be more that of a personal force and stimulator of other men than that of a scientific thinker.

Works. — Of Rousseau's works we may mention here: "Discours sur l'Origine et les Fondemens de l'Inégalité parmi les Hommes" (1753); "La Nouvelle Héloïse" (1761); "Émile, ou sur l'Éducation" (1762), containing

the "Profession de Foi du Vicaire Savoyard," Rousseau's answer to the materialism of his day and the statement of his views on God and natural religion; "Du Contrat Social, ou Principes du Droit Politique" (1762), closely connected with the "Discours sur l'Origine," etc.

Philosophy: God and Nature. — I receive impressions from objects, which I am able to distinguish from myself, even though they were merely ideas; hence they exist. I distinguish from myself as merely feeling or receiving impressions, myself as judging, exercising a power of reflection, — a power which only an active, intelligent being can possess; therefore I, as well as objects, exist. I perceive matter now in motion, and now at rest, and seek a cause. I perceive that if nothing acts upon matter, it does not move; that, therefore, its natural condition is one of rest. I distinguish in myself a voluntary cause of motion; but the visible universe is not an animal which moves itself, and its movements must have an external cause; matter receives and communicates motion, but does not originate it. We have to attribute motion to will as its cause: there is no action without will. Will, then, moves the world and animates nature: this is the first article of my creed. Matter moving according to law reveals an intelligence, — the second article of my creed. Intelligence implies comparing and choosing. Hence there exists a judging, choosing, willing, or acting, being as the cause of all things. The designs of this being I do not comprehend; but I perceive co-ordination and order everywhere, and cannot resist the conviction that the world is guided by a wise, powerful, and consequently a good will. My spontaneous attitude towards this being is that of a feeling of awe and gratitude; and, according to a simple dictate of nature herself, I worship this being. I do not find a written revelation of him. Man's freedom is only apparent: his will is necessarily determined by his understanding; he wills the good only as he judges the true. His freedom, so called, consists merely in his willing what is, and what he holds to

be, suited to him. As free, man is animated by an immaterial substance — the third article of my creed. The evil that man does, returns upon himself, without affecting the order of the world. The only evil in the world is what he does and suffers. That the soul is immortal I do not know, but I cannot *conceive* the dissolution and death of it as of the body. I assume that it does not die, because this assumption comforts me and is not in itself irrational. What happiness or punishment there may be besides those which result from the contemplation of the highest being and from the judgments of conscience, I do not know; but I must think that men will be rewarded according to their deserts, and that justice is done already in this life. I can conceive no greater good that any being could expect to realize hereafter than to be permitted to live according to its nature. The moral disorder of the world does not shake, but rather confirms, my faith in providence. I endeavor to shun the two extremes of heartless freethinking and blind credulity, — I dare confess God before the philosophers, and preach humanity to persecutors. The various religions of men are so many modes of worship, differing merely according to requirements of climate, government, spirit of the people, etc.; they are essentially the same, and good only so far as God is in them. Religion is essentially of the heart. The duties of religion are independent of the affairs of men, but no religion absolves from the duties of morality, which are alone truly essential.

The State. — The State rests upon a contract by which all individuals alienate to the community, or general will, their natural rights. Outside society man exists in a state of nature, which is not, indeed, a state of war, but a state similar to that in which brutes live: instinct, instead of reason, ruling action. But self-preservation and the satisfaction of need are with difficulty secured in such a condition, and to obviate the difficulty society is established. The alienation of rights through which society is established is an alienation of personal freedom and property. The

purpose of the alienation is a redistribution and equalization of rights; a legitimation of what were, before the alienation, rights merely, as it were, by usurpation. In society the general will (*la volonté générale*), or the will of the people, is sovereign, since the civil order should in its essence be as little as possible removed from the state of nature. The general will is infallible, and always attains to justice, since justice is merely what the general will determines: "if the people wrong itself, no one has a right to interfere." The general will must be ascertained, not through assemblies of deputies or representatives, but from a direct expression through meetings of the populace. At each meeting of the populace it must be formally decided whether or not the sovereign (the people) pleases to maintain the existing form of government, and whether or not it pleases to leave the administration of the government with those who actually have it in charge. The change of the existing form of government is not revolution; there *is* no revolution, whatever the State chooses to do being *ipso facto* legal. The general will must be executed by a power directly subject to itself. The monarchy, therefore, is the worst form of government, the republic the best. Religion, like property, must be under the control of the State. As individuals, men may think as seems reasonable to them, but as citizens they must recognize the public religion. The essentials of this religion are the belief in an intelligent, benevolent, prescient, providential God, a future life, the happiness of the just, the punishment of the wicked, the sanctity of the social contract. Non-believers must be punished with death. (At this point appears most plainly the connection between Rousseau's Deism and his theory of Society.)

Morality and Education. — Man is born good: instinct, primal sentiment, unaltered, tend spontaneously to the good. Goodness is life according to nature, or to what we are by nature. Goodness has to be attained by recalling conscience to the sentiment of good and evil, which

sophistry and conventionality have obscured. This is the problem of education. Education is of a threefold nature: it comes from nature, from men, and from things. As coming from nature, it is, so far as the human teacher is concerned, negative. The teacher must, in dealing with the very young, let nature have her way almost entirely, must "keep the child from doing anything." And even in later stages of instruction the teacher must not so much give information as cause the child, by the exertion of its natural powers, to discover of itself what it should know. The successive stages in education are (1) education of the body and the senses (till the twelfth year); (2) intellectual education (from the twelfth to the fifteenth year); (3) moral education (from the fifteenth to the twentieth year). Intellectual education should be entirely utilitarian, — history, language, and literature must be *proscribed*, and, in their stead, the practical arts and sciences pursued; moral education should be sentimental; religious education must begin late, to avoid superstition. Females must be educated solely with reference to wifehood. The natural man, who is the beginning of the process of education, is not a "savage banished to the primal wilderness," but a "savage who is to dwell in towns," and to see with his own eyes and feel with his own heart; in a word, to be ruled by reason.

Result. — Rousseau belongs almost, if not quite, as much to the third as to the second period of Modern Philosophy. In him, at least, *individual self-consciousness* receives something like its due. His Deism, however, connects him with the second period.

§ 82.

Charles Bonnet (1720–1793). — Bonnet, though of French descent, was born in Switzerland, and always lived there. He early began studies in natural history, and made therein important discoveries, which won him membership in the Royal Society of London, the Academy

of Sciences in Paris, in Göttingen, in Stockholm, etc. In him were combined with the attributes of the scientist those of poet and metaphysician. He applied in physical speculation Leibnitzian metaphysical principles. He possesses considerable importance in the history of the doctrine of organic evolution.

Works. — Bonnet's principal philosophical works are: "Essai Analytique sur les Facultés de l'Âme et sur la Méchanique de ses Facultés" (1759); "La Palingénésie philosophique, ou Idées sur l'État passé et sur l'État futur des Êtres vivants" (1769).

Philosophy. — Man is the product of the union of a certain soul with a certain body. The nature of the union of body and soul, we do not understand. To the union we owe our ideas: all ideas, that is to say, originate in sense, and depend upon the operation of the nerve-fibres. To understand ideas, we must understand fibres and their action. There are different fibres for different sorts of sensation (a statement which appears to be an anticipation of the current theory of the specific energy of the nerves). A fibre that has once undergone movement has acquired a tendency to reproduce the movement once impressed upon it. The second impression made in such fibre naturally differs from the first. The mind recognizes the difference by means of a difference in the felt resistance offered by a fibre to movement. The conscious effort of the soul to prolong received impressions is attention. The persistence of impressions in the brain is the ground of memory. Memory is the basis of personality. Reflection, comparison, astonishment, surprise, etc., have a physical basis. In will the soul is self-determining, — possesses freedom. The soul is not self-conscious, — cannot really know by self-observation its own activities: these are known only by physiological observation and reflection. All souls survive after death, and continue to exist in union with bodily organs. The body of the soul after death is a new body, though already present in germ in the actual

body. Its substance is an etherealized matter analogous to fire or electric fluid, and of great mobility. In the universe there is a single scale of life, including all animals and plants, together with man. This scale, since the interval between the finite and infinite is infinite, contains an infinitude of degrees of perfection. All beings gradually rise in the scale of perfection, one degree leading to the next higher, and so on; and all are animate. The stimulating agency of all activity is pleasure and pain; the end of all activity is happiness.

§ 83.

Jean Baptiste Robinet (1735–1820). — Robinet was educated as a Jesuit, but left the order to become a philosopher. He went to Holland to think and write. For a number of years he was engaged in translating English novels, in writing for journals, and on other of the less ambitious kinds of literary work. His chief work is entitled "De la Nature" (1761–1768).

Philosophy. — According to Robinet there is everywhere compensation, the correlation, or equilibrium, of good and evil, being and non-being. The changing existence of finite beings is a continual interchange of these two principles; there is no nutrition without waste, no activity which does not destroy. This being the case, all beings may be regarded as only varieties of the animal type. Instinct (Leibnitz's "appetition") is the universal law of nature. There is no soul without body, no body without soul. Above the changing finite, which is the union of being and non-being, are the immutable infinite (or God), and its correlative, Nothing. God is unknowable. Anthropomorphism must be avoided in the doctrine of God. The only categories that can be applied to him are those of cause and infinitude. Creation is eternal, but not the world or created objects. Knowledge has a sensible origin. Morality is an instinct. — Robinet follows Locke in the theory of knowledge, Leibnitz in that of

being, Hutcheson in that of morality. Some have found in his doctrines anticipations of the Natur-Philosophie of Schelling.

§ 84.

Étienne Bonnot de Condillac[1] (1715–1780). — Condillac was of a noble, but not wealthy, family. Though he entered the Church, he was an *abbé* only in name. Most of his life seems to have been spent in retirement as student and writer. He was in his youth a friend of Rousseau. At one time he was tutor to the Duke of Parma (grandson of Louis XV.), on whose account several of his works were written.

Works. — Of Condillac's works the following seem to be the most important: "Essai sur l'Origine des Connaissances Humaines" (1746); "Traité des Systèmes" (1749), — criticises the systems of Malebranche, Spinoza, Leibnitz, etc.; "Traité des Sensations" (1754); "Traité des Animaux" (1755); "L'Art de Raisonner" (1755); "La Logique" (1780); "La Langue des Calculs" (pub. 1798). The principal work is "Traité des Sensations."

Philosophy: Origin of Ideas. — Condillac is, in general, a Lockean first (in the "Essai sur l'Origine," etc.), then (in the "Traité des Sensations") an emendator, his emendation consisting in the reduction of the sources of knowledge from two to one; *i. e.*, in treating reflection as a form of sensation. Beginning with the simplest order of sensations (those of smell), he seeks to show how the higher follow, as the mind develops, in the order of their degree. The mind receives, as *tabula rasa*, a number of impressions, — has a number of "perceptions," — one of which predominates in vividness in relation to the rest, and fixes the (passive) energy of the mind upon itself, thus begetting attention. This act of attention is succeeded by others, the earlier, however, not becoming lost. These being conjoined in a single act of attention, there

[1] Franck, Works of Condillac, and "Encyclopædia Britannica."

arises the idea of past and present impressions; *i. e.*, of memory as well as of attention. The act of attending to the two impressions or "attentions" at the same time is comparison, which, as implying the perception of resemblance and difference, is judgment. Upon judgment follow reasoning and reflection, which is attention passing successively over the various parts of an object. Attention, memory, comparison, judgment, reasoning, reflection, are but different stages of attention. From sensation arise also the "affections" of the mind, — desire, volition, etc., — through the mediation of the feelings of pleasure and pain (which indeed are the sources of attention). Attention directed to a present disagreeable impression, in contrast with a past agreeable sensation, makes us feel the need of change in our condition. This feeling, together with the idea of the thing conceived as agreeable, constitutes desire, which may be defined as the "action of the understanding determined towards a particular object by the uneasiness caused by the privation of that object." From desire flow all other affections. Desire, strengthened by the idea of the attainability of its object, is transformed into will. The mass of remembered and present sensations constitutes the *I*. Self-consciousness, or the power to say *I*, depends on memory. The knowledge of the body and of external objects — *i. e.*, of magnitude, motion, position, distance — comes to us only through the operation of the sense of touch: by the other four senses we do not get "outside" of our minds at all. The seat of all sensation is the soul (not the body, — Condillac denies being a materialist), and, in the last analysis, we know only our own thoughts. — Condillac employs, to explain the growth of experience, the fancy — which has become a familiar one — of a statue, organized similarly as a human being, caused by an experimenter gradually and systematically to acquire knowledge and power of action.

The Method of Knowledge. — The fundamental principle of thought and the test of truth is the logical principle

of identity. Thought is purely analytical, the discovering of propositions by means of the mere explication of given propositions. The ideal norm of method in all sciences is mathematics. Science is merely well-formed language (*langue bien faite*). In this sense, it presupposes a "given" knowledge of the external and internal worlds, — "evidence of fact" and "evidence of feeling;" hence, while mathematics is our "method," nature is our "guide."

§ 85.

Destutt de Tracy (1754–1836). — De Tracy, who was of a "noble" family, was educated at the University of Strasburg, and adopted the profession of his father, who had died as a field-marshal. He sat in the Constitutional Assembly, and always remained loyal to the political principles of 1789. For political reasons he retired from the post of field-marshal, to which he had been appointed, and devoted himself to science, in company with Cabanis and Condorcet. During the Reign of Terror he was imprisoned, and came near ending his life on the guillotine. During his imprisonment, which lasted almost a year, he became introspective in mental habit, and, through the influence of the study of Locke and Condillac, formed the resolve to abandon the study of the natural sciences for that of mind. Under the Empire he was senator, during the Restoration made peer of France. He was elected to the French Academy, and was an important member of the Academy of Moral and Political Sciences. He had the highest confidence as to the truth of his philosophical and political convictions, and was, it is told, deeply saddened at their becoming, or seeming to become, obsolete.

Works. — The principal works of De Tracy are: "Éléments d'Idéologie" (1804–1824), and "Commentaire sur l'Esprit des Lois" (1819). The former includes the following special treatises: "Traité de Volonté," "Grammaire Générale," "Logique," "Idéologie."

Philosophy: The Problems of Philosophy. — Philosophy

has the three problems of (1) giving an account of the means of knowledge, (2) applying these means to our will, (3) applying them to the study of external objects. To these correspond three groups of sciences: (1) ideology, grammar, logic; (2) political economy, morals, politics; (3) physics, geometry, arithmetic.

Ideology. — Ideology is the "first philosophy," upon which all other sciences depend for their foundation and method. All ideas and faculties originate in sensation; to think is to feel (*penser, c'est sentir*). The immediate objects of the faculty of thinking or feeling may be termed "sensations," "sentiments," "ideas," "perceptions." These are of four classes,— "sensations proper," "memories," "relations between sensations," "desires." Four corresponding faculties are: sensibility, properly so called, memory, judgment, will. Sensibility is the property of our nature by virtue of which we receive impressions of various sorts and have consciousness. Our "external" sensations are caused by the action of objects upon the extremities of the nerves: "internal" sensations by the action of the nerves in the interior of the body resulting from the functioning of organs or lesions of different parts of the body, etc. Memory depends on certain permanent conditions of the brain. Judgment is directly involved in the connecting, in a feeling of agreement, of sensations. Desire and will are respectively passive and active conditions of the same form of thinking faculty. All acts of the thinking faculty, will included, are subject to the law of necessity. Our knowledge of external objects as such comes through the feeling of resistance acquired through voluntary movement. Ideology is a part of zoölogy (*i. e.*, in later terminology, psychology is a part of biology). De Tracy's ideology is a combination of the physiological psychology of Cabanis with the "introspective" psychology of Condillac, the latter element predominating.

Morals. — Man, as having desires, has a capacity for suffering and enjoyment, has needs, rights, duties. His rights

are determined by his needs, his duties by his power of satisfying these. The fundamental principle of morals is that our "rights are always without limit, our duties are always only the general duty of satisfying our needs: every one has the right to do what he pleases and can; there is neither justice nor injustice."

Politics. — The true government is one of pure representation under one or more leaders, — a government sprung from and founded on the general will, having for its principle reason, its means liberty, its effects happiness — a government in which the rulers are servants, and punishment is simply for the prevention of wrong. Here we have in a nutshell the "philosophy" of the moving spirit of the French Revolution.

Result. — De Tracy has been called the "logician or metaphysician" of the "sensualistic school."

§ 86.

Claude Adrien Helvétius[1] (1715–1771). — Helvétius, who was the son of the court-physician at Paris, and educated at the Collège of Louis-le-Grand, had, it would seem, neither externally nor internally very favorable conditions given him for the attainment of philosophic wisdom. He had influential friends, was wealthy, vain of his person, without taste for really scientific pursuits, ambitious to shine in polite society, — was, in short, a spoiled favorite of earthly fortune. He held a lucrative political office for a number of years, and feasted his friends frequently after he retired from it. The publication of Condillac's "Traité des Sensations" excited his intellectual vanity to attempt the production of a philosophical work, the result of his attempt being the (once) famous "De l'Esprit." He died of an attack of gout. He left behind a name for kindliness and for liberality in giving. In his youth he was fond of reading Locke.

[1] Noack; Martineau, "Types of Ethical Theory," vol. ii.

Works. — Besides the "De l'Esprit" (1758), which is his best work, he composed numerous other works, of which we may mention here "De l'Homme ; de ses Facultés intellectuelles et de son Éducation" (1772), — which is a new version of the earlier work, — and "Les Progrès de la Raison dans le Recherche du Vrai" (1775). There were published in various languages, fifty editions of the "De l'Esprit" in a short time.

Philosophy. — The opinions of Helvétius were very largely borrowed from writers of the empirico-sensualistic school. In man, says Helvétius, all is the result of bodily organization, and is to be explained by corporeal sensibility. The law of man's nature is to seek pleasure and avoid pain. By this law — the law of interest — he acquires ideas, or the impressions of relations, and the power of understanding; by this law also are his actions determined: man is a machine set in motion and kept running by corporeal sensibility. The passions of man, which have their origin purely in the impulse to seek pleasure and avoid pain, are of two sorts,— those depending immediately on the bodily sensations, and those depending on ideal, that is, artistic and social, sensations. Both sorts centre in self-love, by which even the most disinterested actions are explainable. "If a man does good to his fellows, if he sacrifices himself for his father, his son, or his country, it is because he finds in doing that action, in imposing a sacrifice upon himself, a pleasure greater than the sufferings which may follow it. An action which, besides procuring pleasure for ourselves, also benefits others, receives the name of virtue; but all virtue has for its final purpose the satisfying of self-interest." The problem of morals and legislation is to combine the interest of the whole with that of the individual. There is and can be no conflict between virtue and justice, on the one hand, and interest, on the other. Rather are the passions necessary to the highest virtue. The virtue of him who is incapable of passion is a passive virtue, — the virtue of indolence. We

require passion to prevent us from gravitating continually towards indolence and inactivity; hence the passions must be encouraged, strengthened. To this end it is necessary to gratify them, to excite them with promised rewards and threatened punishment, to elaborate them by means of education. Without them there is nothing good or beautiful or great among men. The unhappiness of men is merely the consequence of an *unenlightened* self-love. Let men be educated to a full consciousness of their moving principle. All men are by nature equal in capacity of self-enjoyment, since all have the same natural power of sensibility; the differences among them are differences of education. Legislators should exercise the power they have to mould by education the characters and manners of the people as they please. They should employ this power for the increase of the happiness (the greatest possible physical pleasure) of man. — Helvétius has exercised an influence, through Bentham, upon Nineteenth Century Utilitarianism.

§ 87.

Denis Diderot (1713–1784). — Diderot was educated at a Jesuit school at Langres (his birthplace) and at the Collège d'Harcourt in Paris. Refusing to adopt, in accordance with the wish of his father, the profession of law, he chose that of letters, in which after many years of hard labor and privation he acquired great eminence, particularly as chief editor of, and contributor towards, the great French "Encyclopédie." Though not a very systematic thinker, he is regarded as one of the most original and fertile minds of France of the eighteenth century.

Works. — Diderot's standpoint twice changed: he was a "theist," a "deist," and an "atheist" (or rather naturalistic pantheist) in succession. His "Principes de la Philosophie Morale, ou Essai sur la Vérité et sur la Vertu" (1745) — a free rendering of Shaftesbury's "Inquiry Concerning Virtue and Merit" — was written by him as a "theist." In

his "Pensées Philosophiques" (1746), "Promenade d'un Sceptique" (1747), "Lettre sur les Aveugles" (1749), "Lettres sur les Sourds et Muets" (1751), and in his articles for the "Encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts, et des Métiers" (1751–1757), he is generally deist. (The "Encyclopédie" was a sort of mouthpiece of the deistic and materialistic thinkers in France in the middle of last century.) His atheistic views are expressed in his "Pensées sur l'Interprétation de la Nature" (1754), "Entretien entre d'Alembert et Diderot" (1769), "Le Rêve d'Alembert" (1769), — a sequel to the "Entretien," — "Sur la Matière et le Mouvement" (1770).

Philosophy. — In his first period Diderot regards orthodox theism as the only metaphysical doctrine favorable to virtue, and deism as shallow. In his second, or as a deist, he thinks that even atheism is preferable to superstition, and that metaphysic, in the ordinary sense, is as nothing compared with common-sense, that the only weapons of warfare against atheism are the Newtonian physics, that natural religion is the only religion superior to all cavil or objection. In his third period Diderot maintains the view that the first principle of things is matter endowed with a psychic force, or life. Everywhere there is sensibility and activity, though in the lower and lowest grades of being these are, as it were, imprisoned. "Body is, according to some philosophers, in itself without action and without force. This is a monstrous error, contrary to all good physics, to all good chemistry. In itself, by the nature of its essential qualities, whether it be considered in molecules or in masses, it is full of activity and force." This new view takes with Diderot, first, the shape of a (quasi-Leibnitzian) dynamic atomism, and afterwards of a pure monism, since he denies all real independent existence of *individuals*, and asserts that only of one *individual*, — the All. Man is a part of nature; the soul is not separate from the body, psychology is merely physiology of the nerves. In the properties and conditions of our sense-

organs lie also the conditions and qualities of moral conduct. Freedom of will is a delusion. Diderot approves the ethics of Epicurus, and the Hobbean view of natural right, though not of society, for he maintains that laws are for the good of all, not of one alone. Beauty, says Diderot, is relative to us, but is an object of thought, and not of sensation. Our ideas of beauty (*i. e.*, order, arrangement, proportion, harmony) arise to us from our needs and the natural exercise of our faculties. By means of the standard thus gained we judge of the beauty of beings surrounding us.

§ 88.

Julien Offray de Lamettrie (1709–1752). — Lamettrie, after a thorough early training, took courses in medicine at the universities of Rheims and Leyden. At the latter university he heard the celebrated Boerhaave. He entered the army in the capacity of a physician, and while sick with fever, or at least in consequence of observations he made upon his mental, in connection with his bodily, condition during the illness, conceived the idea of explaining all thought as a consequence of bodily organization, and wrote a treatise embodying and developing the idea. The treatise provoked hostile criticism, and he wrote others in reply to critics. His opinions caused his exile from France, and even from Holland. He took refuge with Frederick the Great, with whom he lived in greatest intimacy, and by whom he was made member of the Prussian Academy of Sciences.

Works. — Of Lamettrie's numerous works, the most important are: "Histoire Naturelle de l'Âme" (1745), "L'Homme-Machine" (1748). Others are "L'Homme Plante" (1748). "Discours sur le Bonheur, la Volupté, l'Art de Jouir" (1751). He was formerly supposed to be the author of (D'Holbach's) "Système de la Nature."

Philosophy. — Matter possesses the power to feel, think, and move. Human thought and will originate in sensation. All memory is explicable by organic or bodily conditions.

What we eat and drink determines our thought and action. Physicians, not metaphysicians, are the true philosophers. Happiness depends on sensuous enjoyment. Such enjoyment may be enhanced by reflection: the educated man has higher enjoyment than the ignorant. There is every probability of a Supreme Being, but there is nothing absurd in the idea of an eternal machine. Belief in God is not without real value for mankind, though religion does not necessarily have morality as a consequence. Death is annihilation. Life is a farce.

§ 89.

Paul Heinrich Dietrich, Baron d'Holbach[1] (1723–1789). — D'Holbach, though a native of Bavaria, was educated, and spent most of his life, in Paris. Inheriting great wealth, he became a generous patron of artists, men of letters, philosophers, and kept open house, as it were, for his learned friends (among whom were Condillac, Helvétius, Diderot, Hume, Turgot, and, for a time, Rousseau), who dubbed him "maître d'hôtel de la philosophie." At his house, dinners were regularly eaten by his friends on Sundays and Thursdays, and at table, political, religious, and philosophical questions were debated. D'Holbach had a varied learning, and was a collaborator on the "Encyclopédie," for which he translated articles from Dutch and German on scientific topics. His personal character seems to have been an unusually attractive one; he was not only hospitable, but remarkable for courtesy, gentleness, modesty, and benevolence.

Works. — D'Holbach is now known chiefly by his "Système de la Nature, ou des Lois du Monde Physique et du Monde Moral" (1770), which has rightly been called the "Systematic chef-d'œuvre of French Materialism in the Eighteenth Century." Other works of his are "Christianisme dévoilé" (1767), "Le Bon Sens, ou Idées naturelles opposées aux Idées surnaturelles" (1772), "Système Social,

[1] Noack; D' Holbach, "System of Nature" (trans.).

ou Principes Naturels de Morale et de la Politique" (1773), — aims to lay down a system of morals and politics independent of religious systems.

Philosophy. — Though man imagines a realm of existence beyond nature, there *is* nothing for him outside nature, — nature is the all. Nature shows us nothing but matter and motion. Motion, like extension, is contained immediately in the notion of matter, the sole existent. Motion is universal, — there is no rest. All particular motions are communicated motions, — there is no independent motion. By means of motion of various kinds all particular things originate from matter. These motions are governed by unchangeable laws, fundamental among which are those of attraction and repulsion, "sympathy" and "antipathy," "love" and "hate," — in a word, the law that everything seeks itself: the law of gravitation in the physical world, the law of self-love in the moral. Man is a part of nature: he is a material being purely. He experiences an external and an internal motion, and imagines that he has not only a natural body, but also an immaterial soul. But all mental activity is only movement in the brain, a function of the brain. An immaterial being could not feel nor think. There is no free activity, — all feeling, thought, willing, are ceaselessly subject to necessity. To be free, man must be stronger than nature, or outside nature. Mechanism everywhere rules in nature, and the law of the mechanical association of ideas explains all supposed freedom. We suppose ourselves free because we are not conscious of our real motives. The ideas of merit and guilt, reward and punishment, have meaning through the fact (and only through it) that they help to control passion. The soul is inseparable from the body, is born, changes, and dies with it: life, the condition of the soul's existence, is merely the sum of bodily motions, and ceases when those motions cease. Immortality, then, is a delusive idea. But the fear of death is irrational: death is but sleep. The loss of the idea of heavenly immortality is compensated for, in a practical regard, by

the idea of an immortality upon earth in the minds and lives of men. The appeals of priesthood to the ecclesiastical idea of immortality as a moral motive may be replaced by the appeal to the idea of immortality in the visible world. Animated by this idea, men would not be subject to the fear of death, and would live lives of helpfulness to their fellow-men. To contribute to the happiness of our fellow-men is to be truly useful. Utility is the criterion of morality. All men desire happiness: every one seeks his own: self-love is the fundamental law of morals. The idea of God is a superstitious offspring of ignorance, unrest, unhappiness. Men need the word "God" only to designate unknown causes. The idea of God, like that of the soul, is a consequence of the error of mentally separating soul and body, spirit and matter. It is purely negative, and useless. The world needed no creator: the attributes of the uncreated indestructible elements are adequate to its production. If there were a God, where should he be located? If in nature, he would be merely matter or motion; if outside nature, he would be immaterial, and would have no place. The idea of God is not merely useless, it is chimerical, absurd, the cause of all evil in society. — The doctrine of D'Holbach is the purest expression of materialism in modern philosophy, and the last word on the subject.

§ 90.

Pierre Jean Cabanis[1] (1757–1808). — Cabanis studied with priests at Cosnac (his birthplace); he studied also at the College of Brives, and at Paris. Though for some years student and professor of belles-lettres (and ambitious of literary distinction), he turned to the study of medicine, took his degree in 1783, became professor of hygiene in a school in Paris, administrator of hospitals, and lecturer in the National Institute. During the period of the Revolution he was closely associated with Mirabeau, labored to-

[1] Noack; "Rapports du Physique et du Moral," etc.

gether with him for the cause of public education, and attended him as physician in his last illness. He was at one time member of the Council of Five Hundred and of the Senate. Among his friends were, besides Mirabeau, Diderot, D'Alembert, D'Holbach, Condorcet, Condillac, Voltaire, Franklin, and Jefferson.

Works. — Cabanis' philosophical works are a series of memorials, published first (1802) under the title "Traité du Physique et du Moral de l'Homme," again (1805) under the title, "Rapports du Physique et du Moral de l'Homme."

Philosophy. — All knowledge, says Cabanis, is knowledge of phenomena. So-called first, or metaphysical, causes, are beyond our ken. All mental or psychical phenomena must be referred to the bodily organization as their sole cause: the mental (or moral) is only the physical considered under certain particular points of view: psychology is but an aspect of physiology. Living or animate nature is distinguished from non-living or inanimate nature by the universal characteristic of sensibility, or the capacity to feel. But there forces itself upon us the "conjecture that between animal sensibility, on the one hand, and plant impulse, and even elective affinity and attraction of gravitation, on the other, there is an analogy; that vegetable impulses, chemical attraction, universal gravitation, are a sort of instinct which, though varying and indefinite in the lower stages, develops more and more in the following, and exhibits in the higher a suggestion of will and inclination." Sensibility, then, must be regarded as of physical origin and principle. There may be sensibility without the consciousness of it, or without sensation. Sensibility arrives at consciousness in the brain, the function of which is to "think" (to work over the nervous impressions received from without), as that of the stomach is to digest; to "secrete thought," as that of the liver is to "secrete bile." But even when unconscious it may be the determining condition of movement. It is excited to activity by impressions from without: these impressions are

transmitted to a distributing centre, whence the nerves convey them to the muscles. The medium of conduction is, Galvanism seems to show, electricity. The sympathetic connection of the parts of the organism with one another through the nervous system renders preposterous the "statue" of Condillac. The operations of the organism by which perceptions, conceptions, judgments, determinations of will, are brought about, instead of occurring singly and without affecting one another, occur in connection with one another and modify one another. From the motions of the brain resulting from external or internal impressions conveyed to it, arise all operations of the soul or mind; from the impressions of outer sense arise ideas; from those of inner sense or feelings in the internal bodily organs, instincts, — as, for example, the maternal instinct, which arises from the action of inner organs during the period of gestation. Through the brain (and nerves) also the mind acts on the body. *Les nerfs, voilà tout l'homme!* In the nervous system — and especially the brain — is the identity of the physical and moral which the method of natural science postulates. — Cabanis outgrew (if we may say so) this pure materialism, and held to the belief in a universal intelligence and will above the physical world. His earlier doctrine is a complete anticipation in many respects of the physiological psychology of the present moment.

§ 91.

The German "Illumination" (*Aufklärung*).[1] — There were in the conditions of the age in which the Leibnitzo-Wolffian philosophy flourished, reasons why that philosophy should (in general) give place to a philosophy the object of whose interest should be, not truth in general and for its own sake, but a limited aspect of it and for utility's sake, — why, in other words, that would-be universalistic, scientific rationalism should give place to a pronouncedly limited, merely humanistic, and even individualistic one. There

[1] Zeller, Erdmann, Noack.

was in the very spirit of the age in Germany a distinct subjectivism which revolted against custom, authority, and law in all matters, and sought to determine everything anew and from inner original sources. This was reinforced, as regards philosophy, by an influx of French materialism (particularly at the court of the gallicized Frederick the Great) and of English empirical psychology, deism, and moral philosophy. Even in the Leibnitzo-Wolffian philosophy, indeed, there was an element that was entirely in harmony with all this. To say nothing of a certain individualism implied in its doctrine of monads, its insistence upon common intelligibility and practicality as prime requisites of a sound philosophy, upon the paramount importance of an "enlightened understanding" as a condition to human welfare and happiness, was calculated to throw the weight of its influence with the common mind entirely in the direction of a rather narrow rationalism, much narrower than the system of Wolff (as a system which professed to take all knowledge for its province) would admit of,—a rationalism that despised "metaphysics" and "mysticism," and extolled "common sense" and "sound understanding." It was therefore in every way natural that the prime object of interest in philosophy should be man, and the question of his present and future welfare and happiness, that thought should centre upon his inner experiences and his faculties; that self-contemplation and diaries, confessions, autobiographies, etc., resulting from it should become a fashion; that philosophical discussion should run mainly along the lines of empirical psychology, æsthetics (utilitarian), moral philosophy (equally utilitarian), natural theology, and should be unsystematic and not altogether profound. Such at least was the case. By far the most important thinkers of the Enlightenment, as it is usually termed, are *Moses Mendelssohn* and *Lessing*. Besides these two should be mentioned here: *Hermann Samuel Reimarus* (1694–1768), a pronounced Woffian (except as to the doctrine of pre-established harmony), who sharply opposed to the ruling orthodox theology the teachings of a rationalistic natural theology

(containing a distinction of teleology into internal and external which was adopted by Kant), and taught a pronounced eudæmonism; *Johann Georg Sulzer* (1720–1779), noted chiefly as a writer in æsthetics, but author of an ethico-physical treatise in which the ground is taken (for example) that the divine goodness appears in the fact that cherries do not ripen in the winter, because then they would not taste so well as in the summer, — an instance of the superficially anthropomorphic teaching in the teleology of this period; *Nicolaus Tetens* (1736–1805), a Leibnitzo-Lockian, who was one of the "first to co-ordinate feeling as a fundamental faculty with understanding and will," and was esteemed and followed by Kant as a psychologist, and was in turn capable of appreciating and being influenced by Kant; *Johann Georg Heinrich Feder* (1740–1820), a representative eclectic of the "common sense," utilitarian type, who, together with *Christoph Meiners*, established a "Philosophical Library" for the purpose of combating the Kantian Criticism; *Johann Bernhard Basedow* (1723–1790), a successful popular pedagogist, one of whose doctrines may here be mentioned because of the contrasts it offers to a corresponding one of Kant's, — *viz.*, that the doctrines of the existence of God and the immortality of the soul must be true because belief in them is morally beneficial.[1] We may now turn to the two most important Illuminationists, Mendelssohn and Lessing.

§ 92.

Moses Mendelssohn[2] (1729–1786). — Moses Mendelssohn was the son of a Jewish teacher and author, of Dessau. He went to Berlin at the age of fourteen, and in the face of many and great difficulties gained a livelihood (as a private teacher, and as a book-keeper and manager of a silk establishment), carried on his studies, and won the recognition of thinkers and scholars. Early educated as a Jew, he was always at heart a Jew, and labored most nobly for the elevation of his race, translating portions of the Old Testament

[1] See Erdmann, § 300, 11. [2] Zeller, Erdmann, Noack.

into German, preparing a Jewish ritual, championing the cause of free thought and universal toleration, and emphasizing certain central truths of universal religion. In the formation of his philosophical opinions he was much influenced by personal intercourse with Lessing and Nicolaï, both pronounced Illuminationists, and by a study of the works of Locke, Shaftesbury, Hutcheson, the Scotch school, Rousseau, Spinoza, Leibnitz, and Wolff, — nearly all thinkers of a rationalistic type, and instrumental in bringing about the philosophical Illumination throughout Germany in the eighteenth century.

Works. — Works of Mendelssohn are: "Philosophische Gespräche" (Philosophical Dialogues), (1755); "Briefe über die Empfindungen" (Letters on the Sensations), (1755); "Phædon, oder über die Unsterblichkeit der Seele" (Phædo, or on the Immortality of the Soul), (1767); "Morgenstunden, oder Vorlesungen über das Dasein Gottes" (Morning Hours, or Lectures on the Existence of God), (1785).

Philosophy. — The only worthy end of human endeavor is the happiness and perfection of human individuals. "Humanity" is a mere dead, fixed abstraction. "Science," as such merely, is likewise an empty abstraction. The prime requisite for the attainment of human happiness is a knowledge of human nature, which is gained only by a careful psychological investigation. This investigation must be conducted, first of all, observation-wise; reason (the reasoning faculty) of itself is liable to err, and must be controlled by the more primitive understanding, whose material is sensations and intuitions. The final criterion of truth is practical need, — the heart. Between (and co-ordinate with) cognition and desire lies feeling, which is either pleasurable or painful. A pleasurable feeling results from the idea of perfection, a painful one from the opposite. A feeling produced by perfection in a sensible form is a sensation of sensible beauty. The impulse towards the realization of the idea of perfection is the fundamental impulse in human

nature, and the highest law of our will. Stated as an injunction, this law is: "Make the inner and outer condition of thyself and others as faultless as thou canst." Indispensable for the fulfilment of this injunction and the realization of the idea of perfection is a rational faith in God, in the divine government of the world, and in the immortality of the soul. Now, the existence of God follows for us from the idea of the most perfect being: the idea is self-contradictory unless God *be*. The being of God follows, further, from the contingent nature of the world. That the soul is immortal follows from such considerations as that: Nature knows no real annihilation; a rational being, striving by the necessity of its nature towards perfection, cannot reasonably be hindered in its destiny; the rational necessity of retribution is not satisfied in the present existence; without the hope of immortality human life must be a life of stupefaction and despair. But if the soul endures, so must its chief attributes, thought and will; and its existence must be a happy one, since it is impossible that God, the perfect being, could destine it for eternal wretchedness. These principles relative to human happiness, God, and immortality are for Mendelssohn almost, if not quite, axiomatic. Metaphysics he deems to have every whit the evidence, *i. e.*, the certainty and comprehensibility, that mathematics boasts; it is only because mathematics has a system of well-chosen symbols, is not concerned with the existence of *objects*, and does not immediately affect our interests, that a prejudice in its favor exists. Descartes, indeed, showed clearly and distinctly the mathematical certainty and intelligibility of metaphysics in his demonstrations of the existence of the ego and of God. Without this certainty and intelligibility metaphysics were of course valueless.

§ 93.

Gotthold Ephraim Lessing[1] (1729–1781). — Lessing, the most original and profound of the Illuminationists, or

[1] Zeller, Erdmann, Noack; Works of Lessing.

German rationalists, was the son of a preacher and author, received an uncommonly good training in mathematics and the classics at the Latin school of his native place, Kamenz, in Upper Lusatia, and at the "great school of St. Afra in Meissen," and attended the University of Leipsic (to become, as he phrased it, not a scholar, but a man) and afterwards the university at Wittenberg, where he took his master's degree. Instead of making theology or medicine his profession, as his father desired, he was drawn by a social nature, literary tastes, and a desire to become a polished man of the world, into the society of actors and dramatists, and finally chose literature as a calling. His works fall chiefly in the departments of the drama and æsthetic criticism and of philosophico-theological criticism.

Works. — Lessing's philosophical views are to be found principally in his "Das Christenthum der Vernunft" (The Christianity of Reason), (1752–1753); "Ueber die Wirklichkeit der Dinge ausser Gott" (On the Reality of Things outside God), (1763); and "Die Erziehung des Menschengeschlechts" (On the Education of the Human Race), (1780).

Philosophy. — Profound and comprehensive in thought as Lessing is universally acknowledged to be, his place is primarily among the great writers rather than among the great philosophers of the world. He himself avowed that he was not, and would not be, a philosopher, — that the pursuit was nobler than the fixed possession of truth. His importance in relation to the history of philosophy lies chiefly in the fact of his force and influence as a critic, and as suggester of fruitful points of view. It is as a champion of the higher reason rather, perhaps, than the enlightened understanding of which Mendelssohn is the purest representative, that Lessing has a place among the Illuminationists. His metaphysical principles are those of Leibnitz as modified by the influence of Spinoza, on the one hand, and, on the other, the individualistic thinkers of France and England, with all of whom he had a learned acquaintance.

The monads are to Lessing real individuals, actually existing partialized "perfections" or "realities" in the Leibnitzo-Wolffian sense, of God: they are parts of God, who is therefore something other than the ideal totality of things. They are in God, and we can have no conception of things outside God. They exist by the fact that God through them presents to himself the world: they are not substances, in the Leibnitzian sense, nor Spinozistic modes. They are individualized, though (and hence) partialized, perfections of God. God is not in things, constituting their substance, as Spinoza taught, nor is he outside things, as the Deists held. He is that which comprehends all things in its representative power; he is transcendent personality. In this attempt to reconcile individualism and pantheism, Lessing seems more a Leibnitzian than a Spinozist; but he finds no use for the doctrine of a pre-established harmony, so cardinal in Leibnitz's system. He holds, however, to the Leibnitzian determinism: we lose nothing by the loss of freedom except the bare capacity to choose, and ought to be thankful that we "*must*." All things are bound together in a web of causes and effects and tend towards the one best thing. The human soul, as tending towards perfection, requires infinite room, an immortality, for its full activity. A *sine qua non* to the attainment of the goal of perfection and happiness is intellectual enlightenment; indeed, man's end is not merely perfection and happiness, but these *through enlightenment*. Immortal existence embraces a plurality of existences for each individual, a series of soul-wanderings under the guidance of a divine providence. The end of the individual's existence lies in the individual. The State is but a means to this end: the ideal State is just that State in which the individual is a law and end unto himself. Such an ideal State has yet to be realized. In the past there has been a gradual development towards the complete realization of this ideal, which will be fully realized only when pure reason prevails. In the past, revelation has guided men; but revelation is an in-

ferior sort of reason, and suited only to the lower conditions of men. There was, first, the Jewish revelation, then the Christian. From the "Christian religion," or religion that honors Christ as a supernatural being, must be distinguished the "religion of Christ," — the religion of piety, human love, and the doing good for good's sake; *i. e.*, of reason. In general, religions founded on revelations and creeds must be regarded as of an inferior order, as having only a temporary value, and as deriving all their usefulness from the success with which they adapt natural religion to special conditions of life. To the higher reason, the dogmas of the Trinity, original sin, and atonement have a certain meaning, it is true. God finds it better, for perfection's sake, to give man laws and pardon his transgressions of them than to leave him *without* laws. But the traditional orthodoxy is a horrible product of madness. — Lessing anticipates in important respects the philosophy of history and of religion of the next period.

§ 94.

Italian Philosophy. — Italian philosophy, in what we have designated as the second period of modern philosophy, may be described, in general terms, as principally either a repetition of Cartesianism, or else of Lockianism, particularly in the form of Condillacism. Cartesians were Tommaso Cornelio (1614–1684); Michelangelo Fardella (1650–1718), who studied three years in Paris with Malebranche and Arnauld; Cardinal Giacintho Gerdil (1718–1802); Vincenzo Miceli (1713–1781); and numerous others. Lockian were Francesco Soave (who translated into Italian Locke's "Essay," and wrote many works in the spirit of Locke), G. C. Bini, F. Barkovich, M. De Tomaso, and others. The philosophies of Wolff and Leibnitz had each an adherent or two. The most important single name is that of Giovanni Battista Vico, commonly known as the "founder of the philosophy of history" in modern times, of whom it is necessary to give some account.

DIVISION III. THIRD PERIOD OF MODERN PHILOSOPHY.

§ 97.

The Characteristics and Divisions of the Third Period of Modern Philosophy. — If the Second Period of modern philosophy is characteristically a period of formal analysis and reflection, the Third Period — extending from the third quarter of the eighteenth century onwards — is a period of synthesis and speculative deduction. The problems of method and the origin of knowledge recur, but in closer relation with that of content and being; and this because being and knowledge are recognized as having a common centre, self-consciousness. Thought in this period is empiricistic, intuitionalistic, rationalistic, as in the second; but empiricism, intuitionism, rationalism, as forms of self-consciousness, are seen to have an organic relation. As regards the results of the thinking of this period, they cannot, in the nature of the case, be mere dogmatism nor mere scepticism in the theory of knowledge and being, nor unqualified mechanicism in the theory of nature, nor pure determinism in the theory of the will; they are, in fact, respectively, idealism (subjective or absolute), organicism, and what we may call, for want of a better term, "libertarianism." To a very large extent, systems in this period group themselves, in their actual historical connections, by nationalities, but may *in general* be grouped as follows, as regards the rubrics "empiricism," "intuitionism," "rationalism": empiricistic are the English systems; intuitionalistic the Scotch, French, and Italian; rationalistic the German systems; miscellaneous, the American. The intuitionalistic systems always, of course, contain a large element of mere empiricism. The order in which it is most practicable to take up the systems is as follows: (1) the Scotch, (2) the French, (3) the German, (4) the Italian, (5) the English, (6) the American.

§ 98.

(1) *Scotch Systems.* — Of the Scotch systems of the Third Period, the following are here treated; *viz.*, those of Thomas Reid, Dugald Stewart, Thomas Brown, Sir William Hamilton, James Ferrier. Ferrier does not belong to the "Scotch school," in the ordinary sense of the term "Scotch school," but is a decided opponent of its principles. But just on account of his opposition to those principles, is it convenient to place him in the same group with the other Scotch philosophers, though he is not even an intuitionist.

§ 99.

Thomas Reid[1] (1710–1796). — Reid, who was the son of a clergyman, was born not far from Aberdeen. He studied theology at Mareschal College, Aberdeen, where he graduated at the age of sixteen. He had as instructor in philosophy George Turnbull. From him Reid, it is said, learned more than from all other masters and writers put together. For ten years after graduation, Reid acted as librarian of the college, continuing his studies meanwhile. He presided as pastor over a parish in Aberdeenshire for some years (with indifferent success); and in 1752, on the merits of some brief treatises, among them one on Aristotle's Logic, was appointed professor of moral philosophy in King's College, Aberdeen. From 1764 to 1780 he occupied the chair of moral philosophy in the University of Glasgow. He is described as having been singularly modest, cautious, sincere, and devout, and as very positive in his convictions.

Works. — Reid's chief works are: "Enquiry into the Human Mind on the Principles of Common Sense" (1764), "Essays on the Intellectual Powers of Man" (1785), "Essays on the Active Powers of the Human Mind" (1788). These works had their origin chiefly in

[1] McCosh, "Scottish Philosophy;" Noack; Porter's "Philosophy in Great Britain and America;" Works of Reid; etc.

a purpose to refute Humian scepticism and Lockian-Berkeleyan subjective idealism.

Philosophy: Standpoint and Method. — At first a Berkeleyan in philosophy, Reid, according to his own account of himself, was driven by an impulse received from the scepticism of Hume to the position which has come to be known as the standpoint of "Common Sense." He at one time renounced philosophy (as ordinarily understood, at least), and declared that the hopeless condition of philosophy in his day was owing to the fact that philosophy had undertaken to sit in judgment on common sense. His philosophical importance, such as it is, seems to depend chiefly on his doctrine of sensation and perception, and of the *a priori* element in knowledge. We may notice also his classification of the powers of the mind. The method of philosophy is, according to Reid, the method of observation: philosophy is the empirical science of mind. There are certain principles of the common human understanding which are the basis of all thought and science, as presupposed by every investigation. Such are the following: we think, remember, draw conclusions; "fresh and living memory equals in certainty and evidence consciousness itself;" we may have as clear and indubitable knowledge of the activities of our minds as of the external world; our thoughts are manifestations of a thinking principle which we call "ego;" some things exist, not of themselves, but only in and by another as its property or characteristic; there must for most of the activities of the mind be given something different from them, which is their object; there are certain things about which all men of all times and peoples agree; all things may be admitted about which there is agreement among sane-minded men.

Sensation and Perception. — We have immediate knowledge of the "external world;" we do not conclude from a resemblance of an idea to an object to the existence and nature of the object, since we should have to know beforehand the object itself in order to compare the two. Such

resemblance, moreover, does not exist. The (Lockian) doctrine of representative ideas is therefore false, — a mere begging of the question. In perception there is not only a feeling, an "impression" produced upon or in sense, but an immediate primitive act of judgment affirming the existence of an object of the sensation. The sensation is a "sign" or "suggestion," upon the occurrence of which the mind spontaneously and at once applies its inner principles to the determination of the object, and exercises belief in its existence as determined. The sensation is *not* to be considered as a *ground of inference* to the external world, since the act of perception is not a mediate but an immediate or direct act or process. Ideas regarded as individual existences which are intermediaries between objects and the mind, are mere fictions: ideas exist in and with (not merely after) the "primitive judgment" of perception, and become independent objects of the mind only in consequence of a "resolving and analyzing" of the natural and original judgment, or an act of "simple apprehension." Our knowledge of ourselves is as direct as that of the external world: "it is not by first having the notions of mind and sensation, and then comparing them together that we perceive the one to have the relation of a subject or substratum, and the other that of an act or operation; on the contrary, one of the related things — to wit, sensation — suggests to us both the correlate and the relation." In this doctrine of sensation and perception is contained, besides the refutation of the theory of representative ideas, the Humian notion of the individual independence of "perceptions," and the Lockian doctrine of knowledge as the perception of agreement or difference between two separately presented ideas; *also* a refutation of the doctrine that the mind is at first a mere *tabula rasa*. The mind, that is to say, contributes something of itself towards knowledge.

"*Common Sense.*" — We ascribe to reason two offices, or two degrees. The first is to judge of things self-evident; the second, to draw conclusions which are not self-evident

from those that are. The first of these is the province, and the sole province, of common sense. The principles of common sense (which it is important to determine, since every man is competent to judge of them, and opinions which contradict first principles are both false and absurd) are of two classes, — contingent and necessary. Of the former class there are twelve, as follows: (1) Everything of which I am conscious exists; (2) The thoughts of which I am conscious are the thoughts of a being which I call myself, my mind, my person; (3) Those things did really happen which I distinctly remember; (4) We know our own personal identity and continued existence as far back as we can distinctly remember; (5) Those things do really exist which we distinctly perceive by our senses, and are what we perceive them to be; (6) We have some degree of power over our actions and the determination of our wills; (7) The natural faculties by which we distinguish truth and error are not fallacious; (8) There is life and intelligence in our fellow-men with whom we converse; (9) Certain features of the countenance, sounds of the voice, and gestures of the body indicate certain thoughts and dispositions of the mind; (10) There is a certain regard due to human testimony in matters of fact, and even to human authority in matters of opinion; (11) There are many events depending on the will of man in which there is a self-evident probability, greater or less according to circumstances; (12) In the phenomena of nature, what is to be will probably be like what has been in similar circumstances. Necessary truths are of the following classes: (1) grammatical principles; (2) logical axioms; (3) mathematical axioms; (4) axioms in matters of taste; (5) principles in morals, — *e. g.*, An unjust action has more demerit than an ungenerous one; (6) metaphysical principles, — *e. g.*, (a) The qualities we perceive by our senses must have a subject, which we call body, and the thoughts we are conscious of must have a subject, which we call mind; (b) Whatever begins to exist must have a cause which produced

it; (c) Design and intelligence in the cause may be inferred with certainty from marks or signs of them in the effect. The principles of common sense are established upon the general consent of mankind, as shown particularly in the language of men.

The "Powers of Man." — The human "powers," or "faculties," are, first of all, "intellectual" and "active." The intellectual powers are, external sense, memory, conception, abstraction, judgment, reasoning, taste, moral perception, consciousness, and the social operation of the mind. To sense-perception may be attributed direct knowledge of external existence (including space); to memory an *immediate knowledge* of the past and of personal identity; to conception, the forming of notions of individual things, of the meanings of words (and of imaginary existences); to abstraction, the formation of *general* conceptions (universals have no existence except *in* the mind); to judgment, the framing of the principles of common sense; to reasoning, ratiocination; to taste, the being pleased or displeased, together with the power of judgment (the beauty and sublimity of objects of sense being "derived from the expression they exhibit of things intellectual, which alone have original beauty"). Active powers can be attributed only to subjects having thought, understanding, and will. There is no efficient cause in nature as known to "natural philosophy:" "a physical cause is not an agent; it does not act, but is acted on, and is passive as to its effect." Will (or the form of active power, which in itself is not directly known) is to be distinguished from desire and the affections. It is free (as we know directly from the testimony of consciousness, the fact of moral obligation, etc.). "I grant that all rational beings are influenced, and ought to be influenced, by motives. But the relation between motive and action is of a very different nature from the relation between an efficient cause and its effect. An efficient cause must be a being that exists and has the power to produce the effect. A motive is not a thing that exists.

It is only a thing conceived in the mind of the agent. Motives imply liberty in the agent, otherwise they have no influence at all." The principles of action are mechanical (as instincts and habits), animal (appetites, desires, and affections), rational (regard for our good upon the whole, and a regard to duty). Duty, right and wrong, and the first principles of morals are discovered by the "moral faculty." Moral principles relate to virtue in general, to the different kinds of virtue, and to the comparison of virtues. Of the first sort an example is, Some things in human conduct merit approbation and praise, others blame and punishment; of the second, We ought to prefer a greater to a less good; of the third, Unmerited beneficence should yield to compassion to the miserable.[1]

Result. — Reid is evidently to be classed as an intuitionist, with all his empiricism. From the fact of its antagonistic relation to the pronounced scepticism of Hume, Reid's intuitionism has a more critical and more positive character than that of Lord Cherbury, with which it may naturally be compared. Reid, though not usually regarded as the founder, is the chief, of the "Scotch school" of (empirical) intuitionists. His teachings have had not a little influence also outside of his own country: Rousseau in France, Jacobi, Fries, and others in Germany, owing a decided debt to him.

§ 100.

Dugald Stewart[2] (1753–1828). — Dugald Stewart, who was a son of Matthew Stewart, professor of mathematics in the University of Edinburgh, was educated at Edinburgh High School and at Glasgow University. At Glasgow he gave special attention to mathematics and philosophy. He was a pupil and became a friend and follower of Reid. For a time he acted as a substitute for his father in the chair of mathematics, and then as associate professor of

[1] See Porter.

[2] See McCosh, Franck, Noack, etc.

mathematics, in the University of Edinburgh. During one session he lectured on morals in the same institution. In 1785 he took the chair of moral philosophy, which he occupied for the next twenty-seven years, exercising a large and wholesome influence for the promotion of philosophical culture.

Works. — Stewart's principal works are: "The Elements of the Human Mind" (three volumes, 1792, 1814, 1827); "Outlines of Moral Philosophy" (1793); "Philosophical Essays" (1810); "A General View of the Progress of Metaphysical, Ethical, and Political Philosophy since the Revival of Letters" (1815 and 1821, in the "Encyclopædia Britannica"); "The Philosophy of the Active and Moral Powers" (1828).

Philosophy. — Stewart, even more, if possible, than Reid, makes of philosophy the empirical science of mind. His general position is substantially that of Reid. Peculiar to him seem to be the following assertions: (1) Our conviction of the independence of the perceived object depends partly on the "repetition of the act of perception" in reference to one and the same perceived object, partly on the natural belief of "common sense" in a fixed order of nature; (2) There are three (instead of two) classes of sensible qualities, the third class (mathematical qualities) being constituted by extension, form, etc., which are posited directly as exterior, and are presupposed by the other primary qualities; (3) Though we are aware of both subject and object in perception, we are conscious, in the strict sense of the term, only of the former, — we are certain of ourselves, or subject, only by inference from the sensation or the act of thinking; (4) The association of ideas (a topic to which Stewart gave extended attention) is not to be deduced from custom, but custom from the association of ideas; (5) Our power over the association of our ideas is not one of arbitrary will merely, but one of knowledge of the principles of cause and effect, ground and consequence; (6) Our ideas succeed one another

in dreams according to the same law as in waking consciousness, the difference between the two states being due solely to the influence of the will.

§ 101.

Thomas Brown[1] (1778–1820). — Brown, who was the son of a Presbyterian clergyman, was born near Edinburgh, educated in and near London, and at the University of Edinburgh. At the university he manifested the liveliest interest, and displayed great acuteness, in philosophical studies. He studied law, and afterwards medicine, and became in the latter a successful practitioner. In 1810 he was appointed adjunct professor of moral philosophy in the University of Edinburgh, having previously acted once as a substitute for Stewart during an illness of the latter. He died comparatively young, of overwork. Brown (like Stewart) was an eloquent lecturer.

Works. — Philosophical works of Brown are, "An Inquiry into the Relations of Cause and Effect" (1804; 3d edition 1818); "Lectures on the Philosophy of the Human Mind" (1820); "Physiology of the Human Mind" (1820). He made contributions to the "Edinburgh Review," — of which he was one of the founders, — among them an article on Kant.

Philosophy. — Under the same stimulus (the teachings of Hume) which called forth from Reid his peculiar anti-sceptical theories of perception and intuitive cognition in general, Brown put forth a doctrine that was almost more sceptical than otherwise, — quite antagonistic in important respects to that of his predecessors in the Scotch school. Brown limits knowledge to phenomena. He rejects the notion of occult "powers" or "faculties" of the mind, and reduces the mind to a series of "states" (if not quite to Hume's "bundle of perceptions"). These he brings under two general heads; *viz.*, "simple suggestion," or the reproduction of the ideas of absent objects, and

[1] McCosh, "Scottish Philosophy," etc.

"relative suggestion," or the perception of relation among ideas. Consciousness with Brown is not separate from the states of the mind, it is merely the "whole series of states" of the mind. External bodies are perceived through sensations of resistance (which must not be confounded with those of touch), outness, extension, interpreted by means of an intuited idea of cause; all that we really *know* being merely sensations. Regarding causation, Brown says: "When we say that B will follow A to-morrow, because A was followed by B to-day, we do not *prove* that the future will resemble the past, but we take for granted that the future is to resemble the past. We have only to ask ourselves why we believe in this similarity of sequence; and our very inability of stating any ground of inference may convince us that the belief which it is impossible for us not to feel is the result of some other principle of reasoning" (than from mere experience); namely intuition. (If we substitute "custom" for "intuition," we get Hume's doctrine of causation. Brown, in fact, says that the difference between Reid and Hume was one of terms rather than of opinion.) Brown gives a table of subjective categories, as follows: (1) "Coexistence," including "position," "resemblance or difference," "degree," "proportion," "comprehension," "whole and parts;" (2) "Succession," including "casual priority," "causal priority." Emotions are "immediate," "retrospective," and "prospective." Will is mere desire, volition the strongest desire. The moral faculty consists of the "emotions" of "approbation" and "disapprobation." Brown strongly advocates the application of physical methods of inquiry to the study of the mind.

Result. — In Brown the principle of intuitionism appears in closest union and also in sharpest contrast with its opposite, that of scepticism. Brown, it is obvious, deviates considerably from the positions of his predecessors in the Scotch school. His philosophy "occupies an intermediate place between the earlier Scotch school and

the later analytical or associational psychology."[1] To some extent a follower of Brown was, as we shall see, the German Beneke. Brown seems to have influenced J. S. Mill's thinking.

§ 102.

Sir William Hamilton[2] (1788–1856). — Hamilton was the son of Dr. William Hamilton, professor of anatomy and botany in the University of Glasgow. By the death of the father a few years after the birth of the son, the entire bringing up of the son devolved upon the mother, said to have been a woman of unusual ability and force of character. William received an excellent education. At the University of Glasgow he distinguished himself as a student in logic and moral philosophy; at Oxford he sustained an examination on an unprecedentedly wide range of reading, and acquired very high distinction in philosophical studies. His reading included, besides other things, almost all the writings of Aristotle and the philosophical works of Cicero. He had already chosen as profession medicine, and had made preparatory studies in it, but instead of practising medicine, he studied law, or rather *pretended* to study law; for his chief occupation while an "advocate" was reading in the Scotch libraries. In 1820, after failure as an advocate, he was appointed to the chair of universal history in the University of Edinburgh, and in 1836 to the chair of logic, having in the mean time won a name as a philosophical writer by articles published in the "Edinburgh Review." A paralytic stroke (in 1844), much illness, and certain minor misfortunes fell to his lot and interfered with the execution of important designs of his in philosophy. He was greatly aided in his work by his wife, but for the assistance of whom as amanuensis his

[1] See "Encyclopædia Britannica."

[2] See W. H. Monck's "Sir William Hamilton" ("English Philosophers"); "Encyclopædia Britannica;" Hamilton's Lectures on "Logic" and "Metaphysics;" O. W. Wight's "Philosophy of Hamilton;" Veitch, "Memoir of Sir William Hamilton."

lectures (generally written the night before delivery in the class-room) could not have been given to his classes. Hamilton has the reputation of having been the most erudite of all philosophers, and also of having been an unusually lucid expositor of philosophic truth.

Works. — Hamilton's principal works are, "Discussions in Philosophy, Literature, and Education" (1852–1853), — a collection of articles previously published in the "Edinburgh Review," among them the celebrated one on the "Philosophy of the Unconditioned;" "Notes and Dissertations" accompanying an edition of Reid's works (1846), — very important; Lectures on "Logic" and on "Metaphysics" (1859–1860).

Philosophy: General Conception of Philosophy. — Philosophy, in the full sense of the term, is a knowledge of causes and of effects in their causes; in a narrower sense, it is the knowledge of mind as the "universal and principal concurrent cause in every act of knowledge." It has its origin primarily in the necessity the mind feels to "connect causes with effects" and to "carry up our knowledge into unity;" secondarily, in the feeling of wonder. As to the methods of philosophy, the "one necessary condition of its possibility is the decomposition of effects into their constituted causes," — analysis. This is the fundamental problem of philosophy. But we analyze that we may comprehend; and we comprehend only inasmuch as we are able to reconstruct in thought the complete effects which we have analyzed into their elements. This mental reconstruction is the final, the consummative procedure of philosophy, — synthesis. Analysis and synthesis are, properly understood, the two correlative necessary parts of the same method, — the one possible method of philosophy. The aberrations of philosophy have all been so many violations of the one method. There are two practical conditions of the study of philosophy: *viz.*, first, the renunciation of all prejudices, the exercising of (provisional) doubt; and, second, the subjugation of the passions, particularly

sloth and pride. The parts of philosophy answer to the three questions: (1) What are the facts or phenomena to be observed? (2) What are the laws which regulate these facts, or under which these phenomena appear? (3) What are the results not immediately manifested which these facts warrant us in drawing? The parts of philosophy are accordingly the *phenomenology of mind*, or *empirical psychology;* the *nomology of mind*, or *rational psychology; ontology*, or *inferential psychology*, or *metaphysics proper.* — Hamilton occupied himself systematically chiefly with phenomenological and nomological investigations: he produced no ontology proper. We may indicate the most general results of his psychology, and then take up points relating to the higher theory of knowledge and being.

Phenomenology. — Mental phenomena are possible only under a certain condition; namely, consciousness, or the knowledge that the ego exists in some determinate state. Consciousness may be "compared to an internal light by means of which, and which alone, what passes in the mind is rendered visible. It is simple, and always resembles itself, except in intensity. It is not a special phenomenon, but comprehends within itself all phenomena." As knowledge it is immediate: it affirms its object explicitly, and the subject implicitly. Whatever appears in consciousness *is* there; consciousness possesses entire veracity, and is the basis of all thought. Necessary to every act of consciousness is attention, which has three degrees, being either a mere vital, irresistible act, or an act determined by desire, or an act determined by volition. Attention is to consciousness what the contraction of the pupil of the eye is to sight. The phenomena in consciousness may be divided into three classes, — phenomena of knowledge, or cognition, of feeling, and of conation (desire and will). The classes of phenomena are not independent of each other: in "every simplest modification of mind, knowledge, feeling and desire or will,

go to constitute the mental state; and it is only by scientific abstraction that we are able to analyze the state into elements." Of the three, knowledge is certainly first in order, and both knowledge and feeling are presupposed by will. Cognition and feeling are always in inverse ratio to one another. The cognitive faculty has the following forms: (1) Presentative Power, comprising external perception and self-consciousness; (2) Conservative Power, or Memory; (3) Reproductive Power, comprising Suggestion (which is without will), Reminiscence (with will); (4) Representative Power or Imagination; (5) Elaborative Power, or Comparison, Faculty of Relations; (6) Regulative Power, or Reason, Common Sense. The feelings fall into two classes: one class comprising feelings that accompany the energies of the cognitive powers, — Contemplative Feelings, or Sentiments; the other, feelings that accompany the energies of the conative powers, — Practical Feelings, or Sentiments. To the former class belong the feelings of tedium, beauty, sublimity, truth; to the latter, feelings relating to self-preservation, enjoyment of existence, preservation of the species, to our tendency towards development and perfection, to the moral law. Feelings as pleasurable are the accompaniments and reflexes of the spontaneous and unimpeded exertion of a power of whose energy we are conscious; as painful, the accompaniments and reflexes of the overstrained or repressed exertion of such a power. — Hamilton does not discuss conations.

Perception: "Natural Realism" and "Natural Dualism." — Hamilton rejects the Brownian criticisms of the doctrine of Reid, and takes up a position, akin to that of Reid, styled by him Natural Realism. We have, according to Hamilton, a direct and immediate consciousness of the external world; our belief in its reality is simply the consequence of our knowledge, immediate feeling, perception of it. We do *not* have a direct perception of material substance: all that we know of that,

all that we can really designate by the name "matter," is the aggregate of extension, solidity, figure, motion, divisibility, roughness, smoothness, etc., which appear to us. We are, it is true, compelled by our mental constitution to attribute these as properties to an independently subsisting something; but of this in itself we *know* absolutely nothing. We know matter only in its effects, — phenomena. The same is true as regards mind; the term *mind* is merely a common name for the states of knowing, willing, feeling, etc. Qualities are of three sorts: primary (*e.g.*, extension), which are modes of the non-ego; secondary (*e.g.*, color), which are modes of the ego; and secundo-primary (*e.g.*, resistance), which are modes of both ego and non-ego. To the ego belongs not merely the pure mind, but also the body so far as it is merely animate; to the non-ego, the extra-corporal world and the body so far as extended. We apprehend the three sorts of qualities directly: the primary, through our body considered as a part of the non-ego; the secondary, through our body as animate; the secundo-primary, through the body under both characters (as encountering and feeling resistance). The consciousness of a resisting thing external to consciousness as such presupposes a possession of the notions of space and motion in space. Space is, in fact, an *a priori* notion. It is also an empirical perception got through the perception of different colors bordering upon each other. The doctrine of Natural Realism is upheld by the enlightened common sense of mankind. Consciousness of object is involved in the consciousness of mental operations relating to object. To accept (as does Brown) the existence of the external world on account of the natural belief in its existence, and yet to deny the truth of our natural belief in the immediate perception of it, is absurd. Mediate knowledge presupposes immediate. It is impossible to the upholders of the doctrine of representative perception to show that the representation resembles the object, etc. In percep-

tion we not only cognize the external world, but distinguish it from ourselves, — we apprehend the existence of matter and mind as separate. Natural Realism involves Natural Dualism.

Latent Modifications of the Mind: Memory and the Association of Ideas. — The most important problem in this connection is, not the explanation of the phenomenon of retention, for that follows easily from the "self-energy" of the mind, and is "involved in the very conception of its power of self-activity," but the phenomenon of forgetfulness, or the vanishing of a mental activity. How can an activity which has once existed be abolished "without a laceration of the vital unity of the mind as a subject, one and indivisible?" The solution of this problem is to be sought for in the theory of obscure or latent modifications or mental activities, real, but beyond the sphere of consciousness. The infinitely greater part of our spiritual treasures lies always beyond the sphere of consciousness, hid in the obscure recesses of the mind. There are two degrees of latency: first, one such that the latent knowledge may be applied how and when we will to apply it; second, one such that whole systems of knowledge may lie unconsciously in the mind, unless by some abnormal condition of mind they are thrown into consciousness. Latent modifications are explained by the hypothesis of the constancy of the quantum of mental energy with a continual change of the ideas among which this energy is distributed, the newer ideas naturally attracting to themselves a relatively larger amount of that energy, and the older being crowded out of consciousness. Though memory is known to be greatly dependent on corporeal conditions, latent modifications do not admit of a physiological or materialistic deduction: they must be referred to the unity and self-activity of mind, in virtue of which mental activities which have once been determined persist. By this conception of latent modifications may be explained the Association of Ideas, the general law of which (which may be called the Law of Redin-

tegration) is that "thoughts which have once co-existed in the mind are afterwards associated, or that those thoughts suggest each other which had previously constituted parts of the same entire or total act of cognition."

Necessary Cognition. — The marks of necessary truth are, — incomprehensibility (or inexplicability), simplicity, necessity and universality, comparative evidence and certainty. Necessity is positive or negative. Positive necessity occurs when a proposition is conceivable and its contradictory opposite is inconceivable; negative, when the proposition and its contradictory opposite are both equally conceivable. According to the logical law of the "Excluded Middle," one of the propositions *must* be true; hence inconceivability is *not* a test of truth. Space — to take an illustration — cannot be *conceived* either as finite or as infinite; but it must *be* one or the other of these. The same is true as regards time also. From the foregoing it follows that only positive necessity is a test of truth. Examples of positively necessary notions are existence and its modifications, identity, contradiction, "excluded middle," the intuitions of space and time. The positively necessary notions may be described as "so many positive exertions of mental vigor;" the negatively necessary notions are, on the other hand, consequences of the "imbecility of the human mind." The truth of one of the inconceivable mutually contradictory notions may sometimes (as in the case of the notion of freedom, which is postulated by the moral faculty) be shown by non-theoretical considerations.

The Law of the Conditioned and its Applications: Causation. — It is a law of finite, or human, thought that the conceivable is in every relation bounded by the inconceivable, or, more definitely, "All positive thought lies between two extremes, neither of which we can conceive as possible, yet as mutual contradictions the one or the other we must recognize as necessary." This law receives exemplification in our formation of judgments of causation. "When we are aware of something which begins to be,

we are by the necessity of our intelligence constrained to believe that it has a cause. But what does the expression *that it has a cause* signify? If we analyze our thought, we shall find that it simply means that as we cannot conceive any new existence to commence, therefore, all that now is seen to arise under a new appearance had previously an existence under a prior form. We are utterly unable to realize in thought the possibility of the complement of existence being increased or diminished. We are unable, on the one hand, to conceive nothing becoming something, or, on the other, something becoming nothing. *Ex nihilo nihil, in nihilum nil posse reverti,* expresses in its purest form the whole intellectual phenomenon of causality." Between causes and effects there is an "absolute tautology," — cause and effect have the same content, only in different forms. "Gunpowder is the effect of a mixture of sulphur, charcoal, and nitre, and these three substances again are the effect — result — of simpler constituents, and these constituents again of simpler elements either known or conceived to exist. Now, in all these series of compositions we cannot conceive that aught begins to exist. The gunpowder, the last compound, we are compelled to think, contains precisely the same quantum of existence that its ultimate elements contained prior to their combination. Well, we explode the powder. Can we conceive that existence has been diminished by the annihilation of a single element previously in being, or increased by the addition of a single element which was not heretofore in nature? '*Omnia mutantur: nihil interit,*' is what we think, what we must think." The principle that every event should have its cause is necessary and universal, and is imposed on us as a condition of our human intelligence. As to the origin of the principle of causality, there are possible in all eight different theories, — that it is a result of both external and internal perception, of internal perception alone, of induction and generalization, of association, custom, habit, of pure intelligence,

of expectation of the constancy of nature, of the law of the conditioned. The principle of causality is, in fact, a consequence, or rather special form, of the Law of the Conditioned; our inability to conceive either the commencement of time or the infinite non-commencement of it, is an inability mentally to create or annihilate it; our inability to conceive space as beginning or ceasing to be, is an inability mentally to create or annihilate it; and, in general, our inability to conceive existence as beginning or ceasing is an inability mentally to create or annihilate it. In this last inability is the explanation of the entire phenomenon of causality. The necessity of the principle of causality is, as appears immediately from the foregoing, a negative necessity, a consequence of "powerlessness;" and the principle may consequently be true or false. (It is, in fact, to a certain extent, false, as is proved by the fact of moral freedom.) Another application of the "Law of the Conditioned" occurs in the use of the notion of substance and phenomenon, or accident. The phenomenon which, conceived in entire isolation, would be unthinkable, because unconditioned, refers us to an underlying substance; and substance in like manner to phenomenon.

The Unconditioned: the Infinite and Absolute. — The two inconceivable extremes to which the conditioned is the mean are comprehended under the name "unconditioned." The unconditioned, as the extreme of perfect illimitation, or "unconditionally unlimited," is the Infinite; as the opposite extreme, or as the "unconditionally limited," is the "absolute." By the Law of the Conditioned we can know only the conditionally limited, or existence in special modes. From this it follows that we know neither mind nor matter in themselves; nor can we know ultimate being, or God. God by the Law of Excluded Middle must be either the Absolute or the Infinite; but which of these he is, we have (outside revelation) no means of knowing.

Result. — Hamilton combines with the doctrines especially characteristic of the Scottish school the negativism

of the Kantian theory of knowledge; and perhaps the most characteristic single feature of his doctrine is the (pseudo-Kantian?) doctrine of the relativity of knowledge. The influence of Hamilton's teachings has, it is scarcely necessary to remark, been very wide and marked, — marked even where it might not naturally be expected; as, for example, in the case of Spencer. American metaphysics has in the past been largely Hamiltonian. — We may mention here the most important Hamiltonian, *Henry Longueville Mansel* (1820–1871), Professor at Oxford and Dean of St. Paul's. His chief works are "Prolegomena Logica" (1851), "Metaphysics" ("Encyclopædia Britannica," 1857, separately, 1860), "Limits of Religious Thought" (1858), "Philosophy of the Conditioned." Mansel, however, differs from Hamilton in his doctrine of the Self and his doctrine of Causation. The self is a "fact of consciousness, not an inference from it," is constituted by consciousness. The conditions essential to personal existence are time and free agency. Of causation we know in our consciousness of determining our volitions, and only so; we do not know it as something outside consciousness.

§ 103.

James Frederick Ferrier[1] (1808–1861). — Born in Edinburgh, Ferrier was educated at the Edinburgh High School, under a private tutor, and at the universities of Edinburgh, Oxford, and Heidelberg. He was appointed professor of civil history in the University of Edinburgh in 1842, and professor of moral philosophy and political economy at the University of St. Andrews in 1845. He married a daughter of Professor John Wilson ("Christopher North"). His rather premature death has been the cause of deep regret among a large number of admirers of his speculative genius.

Works. — Ferrier's principal philosophical work is entitled "Institutes of Metaphysic" (1854; 2d edition, 1856).

[1] Ferrier's "Institutes of Metaphysic."

Other works are, an "Introduction to the Philosophy of Consciousness" (1838–1839), "The Crisis of Modern Speculation" (1841), "Berkeley and Idealism" (1842), "Lectures on Greek Philosophy" (1866). The clearness of Ferrier's insight and the lucidity of his exposition gave some foundation for the assertion of one writer that "Ferrier's works are perhaps the best propædeutic to the study of metaphysics in the English language."

Philosophy: Introduction. — Philosophy in its ideal perfection is a body of reasoned truth. A system which is reasoned without being true falls short, indeed, of perfection, but is of higher value than a system which is true without being reasoned. The failure of philosophy hitherto has been chiefly due to its not being strictly reasoned, — its proscription of necessary truth, its neglect to go back to the beginning. — The law of identity is the general expression and criterion of all necessary truth; and the canon of all philosophy is, "Affirm nothing except what is enforced by reason as a necessary truth, *i. e.*, as a truth the supposed reversal of which would involve a contradiction; and deny nothing unless its affirmation involves a contradiction, that is, contradicts some necessary truth or law of reason." The present system starts from a single self-evident proposition, and deduces from it others in a series of demonstrations each of which professes to be as strict as any demonstration in Euclid, while the whole of them together constitute one great demonstration. The ground and only justification of the existence of philosophy is the assumption that the original dowry of man is inadvertency and error; the mission of philosophy is, negatively reviewed, to correct the inadvertencies of man's ordinary thinking. Psychology also "which is the abettor and accomplice of common opinion *after the act*," must come in for a share of castigation. Positively viewed, the purpose of philosophy, or metaphysic, is the substitution of true ideas — that is, of necessary truths of reason — in place of the oversights of popular opinion and errors of psychological science. In

conformity with this double purpose of philosophy, its method is governed by the canon of proposition and counter-proposition, — the confronting of the errors of common and psychological opinion with the necessary truths, or laws of reason, which they violate. The propositions, with their demonstrations, are the "Institutes of Metaphysic." The general unintelligibility of former systems — *e. g.*, those of Plato, Spinoza, Leibnitz, Hegel — is due to their neglect to exhibit the contrast of the true and the false, — philosophical and popular opinion. The parts of philosophy and their order appear upon a consideration of the distinction (first made by Aristotle) between what is first in the order of nature and what is first for us. Being (what is) is first in the order of nature: being as known is first for us, while being is last. Two main parts of philosophy are, then, Ontology (theory of being) and Epistemology (theory of knowledge); we "pass to the problem of absolute existence only through the portals of the solution to the problem of knowledge. But even after we have fixed the meaning, the conditions, the limits, the object, and the capacities of knowledge, it seems quite possible, indeed highly probable, that absolute existence may escape us by throwing itself under the cover, or within the pale, of our ignorance;" it is necessary, therefore, to institute an inquiry into the nature of ignorance, — into what we are, and can be, ignorant of. Hence a third part of philosophy, Agnoiology (theory of ignorance). As Being must be either that which we know or that which we do not know, or neither of these, we shall be able, after having given theories of both knowledge and ignorance, demonstratively to fix its character. — The first question of philosophy is, not, What is knowledge? for that question, in the form in which it is stated, is ambiguous, and hence unanswerable, but, What is the *one* feature which is identical, invariable, and essential in a variety of knowledge, — the *Ens unum in omnibus notitiis?* The answer to this question is the first proposition of Epistemology, — the absolute starting-point of metaphysic.

Epistemology. — "Proposition i. Along with whatever any intelligence knows, it must, as the ground or condition of its knowledge, have some cognizance of *itself.* That is to say, self, or the 'me,' is the common centre, the continually known rallying-point, in which all our cognitions meet and agree, the *ens unum, et semper cognitum, in omnibus notitiis.*" This proposition, as the starting-point of all knowledge, cannot, strictly speaking, be demonstrated, — it is an axiom. Explanation may be employed to show its axiomatic character. Common opinion and ordinary psychology assume that consciousness is possible without self-consciousness. The thing known is and must be always object *plus* subject (Prop. ii.); and the unit or minimum of knowledge is constituted by object and subject taken together. Ordinary thought conceives subject and object, ego and non-ego, as separable (Counter-Prop.). Matter *per se*, the whole material universe by itself, is of necessity absolutely unknowable (Prop. iv.). The demonstration of this proposition is as follows: The whole material universe by itself or *per se* is a mere collection of objects without a subject or self. But it was proved by Prop. ii. that the only things which can possibly be known are objects *plus* a subject or self. Therefore the whole material universe by itself, or *per se*, is of necessity absolutely unknowable. Again, object *plus* a subject is the *minimum scibile per se* (by Prop. iii.). But the whole material universe *per se* being a mere collection of objects without a subject, is less than the *minimum scibile per se.* Therefore the whole material universe, being less than the least that can be known by itself, is of necessity absolutely unknowable" (Counter-Prop.). — The material universe as such is an object of cognition. There is a universal unchanging element (ego), and a particular fluctuating element (non-ego), in every cognition (Props. vi. and vii.). Ordinary opinions and popular psychology assume the opposite; and by this assumption, especially in the form of the doctrine of abstraction, the science of the human mind, as it

is called, has done incalculable mischief to the cause of truth. "All knowledge and all thought are concrete, and deal only with concretions, — the concretion of the particular and the universal." The ego, or self, or mind, *per se* is of necessity absolutely unknowable; it is known only in some particular state, or in union with some non-ego (Prop. x.). *Mere* objects of sense can never be objects of knowledge; *i. e.*, the senses by themselves are not competent to place any knowable or intelligible thing before the mind (Prop. x.). That alone can be represented in thought which can be presented in knowledge: it is impossible to think that of which knowledge has supplied and can supply no sort of type (xi.). The material universe *per se* and all its qualities *per se* are not only absolutely unknowable, they are of necessity absolutely unthinkable (xii.). There is no mere phenomenal in cognition; the phenomenal by itself is absolutely unknowable and inconceivable (xiv.). The substantial in cognition is object *plus* subject, matter *mecum*, universal and particular, etc. (xvi.). There is no mere relative in cognition (xviii.). There is an absolute in cognition, — something absolute is knowable, and is known by us (xx.). The absolute in cognition is object *plus* subject; matter *mecum*, universal and particular, etc. (xxi.). The main result, then, of Epistemology (which attempts to answer the question, What is knowledge?) is that knowledge is the apprehension of one's self along with all that one apprehends, of object *plus* subject. The only way of transcending one's consciousness is by conceiving other consciousnesses like one's own.

Agnoïology. — Ignorance is an intellectual defect, imperfection, privation, or shortcoming. The law of all ignorance is that "we can be ignorant only of what can possibly be known;" in other words, there can be an ignorance only of that of which there can be a knowledge (iii.). There is no ignorance of objects *per se* or out of relation to mind; hence no ignorance of matter or mind *per se*, of universal or particular, etc., *per se*. The object of ignorance is always

the synthesis of the particular and the universal, object *plus* subject, etc. — In the Agnoïology, says Ferrier, the "ship of Speculation is put upon a new track, the great waters of Reason are spread before her in a direction heretofore untraversed." The doctrine of ignorance has been missed, partly because philosophers have wavered as to the precise object of knowledge, and partly because they have been too much occupied with the *quantity* of ignorance to think of its nature or quality.

Ontology. — What truly is, or Absolute Existence, is either first that which we know, or that which we are ignorant of, or that which we neither know nor are ignorant of. The counter-proposition is (in substance) "Whatever we do not know, we must be ignorant of; in other words, it is impossible neither to know *nor* to be ignorant of a thing." (The error in this position lies in the overlooking of the fact that the Law of Excluded Middle applies only to non-contradictory things. Of the contradictory, or the absolutely or in itself unknowable, there is *neither* knowledge *nor* ignorance.) Absolute Existence is not what we neither know nor are ignorant of (since it is not the contradictory); it is either that which we know or that which we are ignorant of. It is not matter, nor the universal, nor the particular, nor the ego *per se;* for of these things we can neither know nor be ignorant. Absolute existence is the synthesis of subject and object, of universal and particular, ego and non-ego. All absolute existences are contingent except *one;* in other words, there is One, but only One, Absolute Existence which is strictly *necessary;* and that existence is a supreme and everlasting mind in synthesis with all things (Prop. xi.). The demonstration of this proposition is as follows: "To save the universe from presenting a contradiction to reason, intelligence must be postulated in connection with it; because everything except the synthesis of subject and object is contradictory, and is that of which there can be no knowledge and no ignorance. But more than one intelligence does not require to be postulated;

because the universe is rescued from contradiction as effectually by the supposition of one intelligence in connection with it as by the supposition of ten million, and reason never postulates more than is necessary. Therefore all absolute existences are contingent except one, etc. The ninth proposition (relating to the origin of knowledge) of the ontology is, together with its demonstration, as follows: Matter is not the cause of our perceptive cognitions; in other words, our knowledge of material things is not an effect proceeding from, and brought about by, material things. For matter is the particular part or peculiar element of some of our cognitions, — of those which we term 'perceptions.' But the *part* of cognition cannot be the *cause* of a cognition. Therefore, etc." The question, What is the origin of knowledge? is unanswerable, because unaskable. No existence at all can be conceived by any intelligence anterior to and aloof from knowledge. Knowledge of existence, the apprehension of one's self and other things, is alone true existence.

Result. — A strong light is thrown by Ferrier upon his own doctrines and their opposites by a wealth of accurate knowledge of the history of philosophy. The expressed and implied criticism in his teachings bear not alone upon doctrines which his immediate philosophical environment made it necessary to oppose, — the doctrines of the "Scotch school," — but upon doctrines of philosophers of every age.

§ 104.

(2) *French Systems.*— It is particularly convenient to take up the French systems at this point, because they are, in a very noticeable degree, repetitions and continuations of the Scotch. We have to treat of Maine de Biran, Pierre Laromiguière, Pierre Paul Royer-Collard, Victor Cousin, Théodore Jouffroy, Robert de Lamennais, Auguste Comte. The last two named have no other than a merely national identity with the others of this group. Comte logically affiliates with the English group. Lamennais shows German influence.

§ 105.

Maine de Biran[1] (1766–1824). — Maine de Biran spent most of his not very eventful life in retirement, engaged in reflection. He was at one time member of the company of "Life-Guards" of Louis XVI., and, again, of the Council of the Five Hundred, and of both Chambers, and was Councillor of State, etc. He several times carried off honors from the learned academies of Paris, Berlin, Copenhagen, etc. Personally, he is said to have been a man of great modesty.

Works. — We may mention of his works, which are chiefly psychological: (1) "Sur l'Influence de l'Habitude" (1803); (2) "Sur la Décomposition de la Pensée" (crowned by the Institut in 1805); "Apperception" (1811); "Nouvelles Considérations sur les Rapports du Physique et du Moral de l'Homme" (1811, published 1834); (3) "Essai sur les Fondements de la Psychologie et sur les Rapports avec l'Étude de la Nature" (published 1859); "Nouveaux Essais d'Anthropologie" (1823, posthumously published). These works represent (as indicated) three different stages of thought.

Philosophy: First Stage. — Maine de Biran occupies, first, the general standpoint of Bacon, Locke, and Condillac, in whom he sees the true philosophers. He proposes to carry the method of physics over into metaphysics. The understanding is merely the *ensemble* of the habitudes of the brain. A distinction — not made by Condillac — has to be made between sensation as a passive, and perception as an active, condition of mind; the latter involving, as the former does not, a certain volitional activity. A distinction is also to be made between passively formed "customs" and active "habits."

Second Stage. — The sensationalist theory (of Condillac) fails to explain the characteristic attribute of man. It takes as its basis the facts of animal life merely, — the facts

[1] Franck; Cousin, "Fragments Philosophiques."

of unconscious affections in the physical nature of man. But the use of these facts to explain man's characteristic quality is a misuse of them. The animal is without real consciousness, — does not *know* that it exists. Man feels and knows the *me* (*moi*). The *me* is to be distinguished from what is merely physical, and for the reason that it perceives itself and distinguishes itself from its object. It is an error to look for the *me* in fibres, as does the materialist; and it is equally an error to see its nature in the abstract conceptions of the *a priori* philosophers. The *me* does not present itself as object, but as subject. It is not to be comprehended as an absolute, independent of consciousness, but is apprehended in self-observation; and yet only on condition that it reveals itself, or acts, *i. e.*, presents itself as will. Descartes said, *Je pense, donc je suis;* but we may more truthfully say, *Je veux, donc je suis*, — "I will, therefore I am;" the will is the self-manifestation of the *me*. All attempts to derive the *me*, and also the feeling of personality, from mere sensation are vain. The *me* has a double character: (1) it is an individual *force* (not a substance; *substance* is the category of pantheism); (2) it is inseparably united to a resisting organism. This double character is directly evident to consciousness. From the consciousness of the *me's* activity we acquire the universal and necessary notions of force, causality, unity, liberty. These notions are not innate, since they depend on a prior activity of the will, but they are absolutely different in character from mere general ideas produced by external observation. They are *sui generis;* instead of becoming less real, as do ideas derived from sensible perceptions when made the subjects of abstraction, they become more so. It is only by the complete abuse of the spirit of system that the notion of liberty can be treated as a mere abstraction. The will, even when following the stimulus of desire, knows itself to be responsible and free. To understand completely human nature it is necessary to consider its two inseparable interacting elements — one of

which, affection, is variable and relative, while the other, the will, or *me*, is permanent and absolute — in the successive modes of their combination. There result four "systems;" the *affective system* (*le système affectif*), the sensitive system (*le système sensitif*), the perceptive system (*le système perceptif*), and the reflective system (*le système réflectif*). The first comprehends the animal life, — pains, pleasures, instinctive phantasies, images, etc., but no will; the second self-consciousness, the localization of affections in the organs, referring intuitions to space, and associating the idea of cause with them, the beginning of memory and generalization, and will in the lowest degree; the third, attention, which involves a higher degree of volitional effort, the seeking of objects of knowledge, exercising active touch and judging of externality, distinguishing primary and secondary qualities, classification, formation of general ideas, intelligence being occupied in this system with external objects calling it forth; the fourth, all acts of intelligence concerned with its own nature, the *me* here distinguishing itself completely from its opposite, becoming completely conscious of the notions of which it is the source, — the universal and necessary ideas, — and establishing upon them the mathematical and metaphysical sciences.

Third Stage.— There is something higher even than will. Will is incapable of being or becoming all that intelligence perceives. In the presence of the idea of the good, the will feels a certain defect in itself, requires aid. The mere light of reason is insufficient. God is the only succor, — who is both the source of light in the world of intelligence, and of power in the sphere of will. The *me* conscious of its weakness, is in a new relation; it is presented with the alternative of submission to sensible nature, towards which its lower tendencies carry it, or of union with the divine nature, the need of which (union) its higher instincts make for it. The higher life thus opened to the *me* is the life of spirit, — of love, — instead of will; it is the life on which man turns towards the source of light and force, intelligence and

will, and identifies itself with God, the absolute Truth and absolute Good. Below this highest life are the "life of man" (*i. e.*, the life of will, including the *systèmes sensitif, perceptif, et réflexif*), and the "animal life" (*système affectif*). By will man rises out of the animal life, by love out of the "life of man," into the life of spirit. This life is exalted above both Stoicism (which is self-assertion) and Quietism (which is all submission); it is a life of both will and submission, effort and prayer, — the life of Christianity.

Result. — Maine de Biran may be said to have begun in France the revolt against sensationalism begun in Scotland by Reid, in Germany by Kant, etc. He is, indeed, sometimes styled the French Kant, and not inappropriately on other accounts than the one here implied. He is admitted to be an original thinker, — the most original of the French philosophers since Descartes, or perhaps Malebranche; and his thought is strongly marked by that twofold energy of self-distinction and self-identification which marks the thought of Kant (and German philosophy after him). Most of the French philosophers who follow in our account were largely indebted to him.

§ 106.

Pierre Laromiguière (1756–1839) was teacher of philosophy in Toulouse and at the École Normale in Paris. We mention his "Éléments de Métaphysique" (1788), and "Leçons de Philosophie, ou Essai sur les Facultés de l'Âme" (1815–1818). Laromiguière, once a close follower of Condillac, departs from the doctrine of his master in an important respect, in that he consciously makes the mind essentially active instead of passive: with him, not mere sensation, but attention, is the primary faculty of the mind. This is in fact a revolt against the whole principle of sensationalism. From attention are deduced, on the one hand, comparison and reasoning, which together with it constitute the understanding; and on the other, desire, together with

preference and liberty springing from it. The material of knowledge originates in sensibility, which is either (1) simple sensibility, or (2) reflection, or (3) the feeling of relation, or (4) the sense of right and wrong. The idea of God is immediately given to us.

§ 107.

Pierre Paul Royer-Collard (1763–1845). — Royer-Collard graduated at the College of Charmont, afterwards read mathematics and philosophy, making the works of Plato, Descartes, and Leibnitz, and especially Reid, the main objects of his studies. He was at various times advocate in the Parliament at Paris, member of the Council of Five Hundred, professor of philosophy in the College of France, president of the Commission of Public Instruction, president of the Chamber of Deputies, etc. He published no independent philosophical work. His "Fragments Philosophiques" were issued by Jouffroy, with a French translation of Reid's works (1828–1835).

Philosophy. — Royer-Collard opposed the sensationalism and materialism of the school of Condillac with weapons of doctrine borrowed from Reid. The method of philosophy is identical with that of natural science: principles are to be sought through the collecting, sifting, and arranging of observed facts. The ideas of substance, cause, time, space, originate, not in sense, but in consciousness as such. In perception we infer directly, or without reasoning, the external world; the truth of perception in general depends on the will of God; the ego is in all phenomena of consciousness. That it is identical, memory teaches us. Time and space are objective, eternal, infinite, and infinitely divisible; what they are in themselves we do not know, and never shall know. We could never become aware of a reality outside of ourselves but for perception, etc. — Royer-Collard is the founder of the doctrine of eclecticism, of which the chief expounder is Victor Cousin, to whom we now turn.

§ 108.

Victor Cousin[1] (1792–1867). — Cousin was educated at the Lycée Charlemagne and at the École Normale in Paris, at which latter place he heard the lectures of Laromiguière and Royer-Collard on philosophy. At the *lycée* he distinguished himself in the classics, and at the normal school in philosophy. Here he became a *maître de conférences*, and on the resignation of Royer-Collard at the Sorbonne was appointed as his successor there. The liberality of his political opinions, together with his popularity and influence as a lecturer, excited the distrust of the Government, and he was in 1820 deprived of his professorship. He had already acquired some familiarity with German philosophy and had personally met both Schelling and Hegel; and in the interval of seven years which elapsed after his dismissal before he again became a public lecturer on philosophy, he renewed his acquaintance with German philosophy and its greatest living representative when on a stay in Berlin. At the same time he undertook a translation of the works of Plato, and published editions of the works of Descartes and Proclus, as well as important original works. In 1828 he was reinstated at the Sorbonne, and lectured for three years with the highest distinction. In 1830 he was made member of the Academy, in 1832 peer of France, and in 1840 minister of Public Instruction, as such exercising an important influence towards the improvement of education in France. In 1848 he retired to private life. He is quite as worthy (if indeed not more worthy) of a place in the history of philosophy for the stimulus he gave to philosophical thinking and learning as for what he himself accomplished as a philosopher. A large number of pupils have under his inspiration written, translated, edited, commentated works in philosophy; *e. g.*, Barthélemy Saint-Hilaire, Émile Saisset, Jules Simon, Paul

[1] Franck; Cousin, "Fragments Philosophiques;" "Encyclopædia Britannica;" Ravaisson's "Philosophie en France au XIX^e^ Siècle;" "Cousin," by Jules Simon; Morell.

Janet, Adolphe Franck, Charles de Rémusat, M. Waddington, Ph. Damiron, Renouvier, Hauréau, Janet, Taine, etc.

Works. — Of Cousin's numerous philosophical works the following are perhaps the most worthy of mention: "Cours de Philosophie" (1818, published 1836), revised and published as "Du Vrai, du Beau, et du Bien" ("The True, the Beautiful, and the Good"), (1854); "Fragments Philosophiques" (1826); "Cours d'Histoire de la Philosophie" (1827 and 1840); "Cours d'Histoire de la Philosophie Moderne" (published 1841); "Cours d'Histoire de la Philosophie Morale au XVIII^e^ Siècle" (1840); "Leçons de Philosophie sur Kant" (1842); "Nouveaux Fragments" (1847). The "Fragments Philosophiques" (1826) are regarded as containing the best statement of his views, though the "Du Vrai, du Beau, et du Bien" is the more widely known. Cousin translated a large number of standard works on the literature of philosophy.

Philosophy: The Genesis of Cousin's System. — The genesis of Cousin's philosophy (as described by himself) is substantially as follows: Laromiguière taught him mental analysis; from Royer-Collard he learned the fact of universal and necessary truths, after the Scotch method; Maine de Biran taught him to see volitional activity in all consciousness, — the three together grounding him in psychology, the "basis of all science;" his ontological conceptions came to him from Germany, — *i. e.*, from Kant, Jacobi, Fichte, Schelling, and Hegel.

Divisions of Cousin's System. — Cousin's system falls naturally under the heads: method, psychology, ontology, ethics, and the history of philosophy.

Method. — The method of philosophy is (according to Cousin) that of (self-)observation and induction, which may be called the "psychological method." This method assumes that there are certain primary "facts of consciousness." These it attempts to discover and analyze and raise to the dignity of laws, — necessary and universal truths. Some of these, by their self-evidence, take the rank of intu-

itions and afford stepping-stones by which the mind to a certain extent rises out of and above mere consciousness or phenomena into the realm of being as such.

Psychology. — The method just described yields within consciousness the following general truths. There are three great classes of "facts of consciousness,"— facts of sensation, of reason, and of will. 1. Those of will are — as Maine de Biran has shown — facts of personality: the will is the *me;* prior to the development of the will, man is merely a natural being. With will, and will alone, is he personality. A distinction must be drawn between conscious, or reflective, volition and a certain primary volition of which we must become cognizant before conscious volition can occur, — an unconscious volition such as artistic genius manifests. It is unconscious rather than conscious volition that constitutes the essence of personality. 2. Will is the basis of the self-activity of reason, and its independence of sensation, without which it would not *be* reason. The facts of reason are embraced in three "integrant and inseparable elements," *viz.*, the ideas of (1) substance, embracing those of the absolute, the infinite, etc.; (2) cause, embracing those of plurality, difference, the conditioned, the finite, the phenomenal, etc.; (3) the union of these, since unity and plurality, identity and difference, etc., presuppose one another. These ideas are not subjective and relative, but objective and absolute: and first because reason (unlike will, which is individual and personal) is non-individual and impersonal, is an emanation from a universal reason, or God; second, it is (as observation attests) a spontaneous principle having an immediate apperception of the truth germane to it. Relativity and subjectivity in our thinking is the result of reflection, which, as mediatory in nature, admits of error's creeping in at one or more points of the discursive process it involves, — which cannot occur in immediate apperception.

Ontology. — If now the ideas of substance and cause and the syntheses of these two are of objective significance, we have a means of getting at external reality as such,

of apprehending supersensible being. In other words, we know that there is a *real* cause of our sensations *outside* us, that there is a *real* nature corresponding to the idea of the ego, and that there is a *real* being (God) above ego and the external world. The external world, causing our sensations, can be only of the nature of force, is not mechanical but dynamical in constitution. The ego which we perceive as willing, exercising reason, and having sensations, has, as possessing these attributes, an absolute existence, an essential and ever-abiding reality. God, as the synthesis of ego and its opposed non-ego, is comprehensible. He is both substance and cause, — cause because substance, and *vice versa*, — unity and multiplicity, the infinite and the finite, humanity and nature; which is a view of the Deity that avoids the error of pantheism, since this makes God only substance, thus denying the freedom of the ego and the independence of the world. God creates the universe out of himself by a spontaneous non-reflective exercise of energy. In nature his creative energy appears as expansion (passage from unity to multiplicity) and contraction (the reverse process); in us as self-distinction and self-identification in consciousness.

Ethics. — The basis of morality is reason; self-love and sympathy are variable and uncertain as principles. We judge an act of ours to be good or bad according as it conforms or does not conform to a universal rule of reason called the Good, applied to such acts by an act of self-observation. From the idea of the Good flow those of duty, virtue, and the *summum bonum*. The moral commands of reason are, since man is essentially free: (1) Maintain thy freedom; (2) Recognize the freedom of others as thy own (the duty of justice). These are supplemented by obedience to the impulse of devotion, or self-sacrifice. The harmony of reason, freedom, and happiness is the highest good.

History of Philosophy. — The three ideas of the reason — the "infinite," the "finite" and their synthesis — have been the foundation of philosophy (as of life) in every age.

Of the three, that of the "infinite" is the most distinctive in Oriental thought, that of the "finite" in Greek thought, and their synthesis in modern thought. Systems of philosophy as they have appeared in history may be classified as sensational, idealistic, sceptical, mystical. These are all imperfect forms of the one true philosophy, eclecticism.

Result. — Though not of great originality or profoundity (as indeed he did not claim to be), Cousin has had a very great influence on the thought of the century, particularly in his own country and in America. He was a remarkably skilful popularizer of philosophical truth.

§ 109.

Théodore Simon Jouffroy (1796–1842). — Jouffroy was educated at the College of Dijon and at the École Normale in Paris, where he had Cousin as instructor in philosophy. He became an assistant instructor in the Normal School, lecturer at the Collège de Bourbon and in the University of Paris, and adjunct professor to Royer-Collard in the last-named institution. He was at one time member of the Chamber of Deputies. He was elected to the Academy in 1833.

Works. — Original works of Jouffroy are: "Mélanges Philosophiques" (1833), — a miscellany of philosophical writings; "Cours de Droit Naturel" ("Course in Natural Right"), (1835); "Nouveaux Mélanges Philosophiques" (posthumous); "Cours d'Esthétique" (posthumous). (He translated Reid's works and the "Outlines of Moral Philosophy" by Dugald Stewart. He also edited, in an abridged form, Kant's "Kritik der reinen Vernunft," 1842.)

Philosophy. — The only salvation for philosophy — as distinguished from physiological psychology — is the recognition that there is a distinct order of facts for it to deal with, and that there must be a "more profound observation of human nature" than has yet been employed. Human nature has a twofold character: it is both free and subject to necessary laws; it has a psychological and a physiological

side; it is personal and impersonal. It possesses the faculties of liberty of will, of primitive inclinations, of voluntary motion, of speech, of feeling pleasure and pain, of sensible perception, conception, and abstraction (intellectual faculties). Human action, as a part of a universal order, is to be judged according to the degree of its conformity with that, or, in other words, with the destiny of human nature. Beauty is that which affords a disinterested pleasure. The elements of beauty are order and proportion; its conditions are unity and variety.

§ 110.

Robert de Lamennais[1] (1782-1854). — Lamennais was educated for the priesthood, and until 1834 was a stanch defender of the faith and the infallibility of the authority of the Romish Church in matters of religion. After 1834 he appears as a philosopher pure and simple, having renounced the Church.

Works. — The philosophical works of Lamennais correspond with two distinct attitudes of thought. His "Essai sur l'Indifférence en Matière de Religion" and "De la Religion considérée dans ses Rapports avec l'Ordre Politique et Civil" (1825-1826) are works in which philosophy appears as subservient to the Church. His "Esquisse d'une Philosophie" (1837–1841) is a philosophical work in the proper sense of the term.

Philosophy: Earlier Standpoint. — All individual philosophical systems necessarily end in scepticism. The individual reason alone is impotent to search out the universal truth. This is in the possession of the universal reason of humanity, the only true expression of which is contained in the faith of the Roman Catholic Church, and the only organ of which is the pope, etc.

Later Standpoint. — Underlying all our thoughts and affirmations is the idea of being as such, — God. God is the positive in all existence; outside him there is nothing.

[1] Noack.

God alienates himself in part from himself, — thus creating the world of finite existences, which is consubstantial with, though in a manner distinct from, him. God, though one, contains in himself a triplicity of principles. In his intelligence there are: (1) the "sole thought of himself; (2) representative ideas of all particular beings; (3) something which determines the actual distinction of particular ideas." God has the three attributes of power, intelligence, and love, and in all that exists, this triplicity in different degrees recurs. The lowest degree of manifestation of God's attributes is found in matter as such. Impenetrability in matter corresponds to force, or power, in God, figure to intelligence in him, and cohesion to love. The material elements — ether, light, heat — are, respectively, inferior forms of God's three attributes, — power, intelligence, love. The divine essence communicates itself in all its purity to the rational free soul. Creation is the progressive manifestation of all that which is in God, and in the same order in which it is in God. The world is the best possible. All that could be, necessarily was; there was no room for choice. Lamennais aims to avoid pantheism by insisting on the necessary imperfection of the world as a created existence (since God could not create another God), and therefore it is separateness in relation to God.

§ III.

Auguste Comte[1] (1798–1857). — Comte was born at Montpellier. He attended school in Montpellier and studied at the École Polytechnique in Paris, from which he was ejected because of unwillingness to submit to what was, perhaps, an arbitrary exercise of authority. For some years he lived in Paris, obtaining a not very liberal livelihood by

[1] See Abridged Translation of Comte's "Philosophie Positive," by Harriet Martineau; "A General View of Positivism" (translated by J. H. Bridges); "Positive Philosophy of Auguste Comte," by J. S. Mill; "Encyclopædia Britannica;" Caird's "Comte's Social Philosophy."

teaching mathematics. Between the years 1818 and 1824 he was a pupil of the Socialist Saint-Simon. At first an enthusiastic admirer of the Socialist, he came to despise him as a charlatan, and declined to admit himself to be under any great intellectual obligations to him. In 1826, in consequence of overwork and of mental anxiety caused by domestic discord and financial straits, he became mentally deranged. He was able, however, in 1828 to resume his work as teacher, and to prepare in the two years following a volume for publication. In 1832 he was appointed *répétiteur*, or assistant-instructor, and not long after examiner, in the École Polytechnique. In 1842 he lost his place as examiner, and lived precariously, supported in part by contributions of friends and followers in France and England. In 1845, having, three years previously, divorced his wife, he fell violently in love with a certain Madame Clotilde de Vaux, whose friendship he enjoyed only for too brief a period, since she died the next year. The influence of her and her memory upon him introduced a new epoch in his mental life, promoting, if not causing outright, a tendency the seeming opposite of the positivistic, *viz.*, a phantastico-mystical religious tendency.

Works. — Comte's chief philosophical works are: "Cours de Philosophie Positive" (1830–1842, 6 vols.); "Système de Politique Positive, ou Traité de Sociologie instituant la Religion de l'Humanité" (1851–1854); "Synthèse Subjective" (1856).

Philosophy: the Law of Human Development. — "Each of our leading conceptions, each branch of our knowledge, passes successively through three different theoretical conditions, — the theological, or fictitious; the metaphysical, or abstract; the scientific, or positive. In other words, the human mind by its nature employs in its progress three methods of philosophizing, the character of which is essentially different, and even radically opposed; *viz.*, the theological method, the metaphysical, and the positive. Hence arise three philosophies, or general systems of con-

ceptions on the aggregate of phenomena, each of which excludes the others. The first is the necessary point of the human understanding; the third is its fixed and definitive state. The second is merely a state of transition. In the theological state, the human mind, seeking the essential nature of beings, the first and final causes (the origin and purpose) of all effects, — in short, absolute knowledge, — supposes all phenomena to be produced by the immediate action of supernatural beings. In the metaphysical state, which is only a modification of the first, the mind supposes, instead of supernatural beings, abstract forces, veritable entities (that is, personified abstractions) inherent in all beings, and capable of producing all phenomena. What is called the explanation of phenomena is in this stage a mere reference of each to its proper entity. In the final, positive state, the mind has given over the vain search after absolute notions, the origin and destination of the universe, and the causes of phenomena, and applies itself to the study of their laws, — that is, invariable relations of succession and resemblance. Reasoning and observation, duly combined, are the means of this knowledge. What is now understood when we speak of explanation of facts is simply the establishment of a connection of single phenomena and some general facts, the number of which diminishes with the progress of science. The theological system arrived at the highest perfection of which it is capable when it substituted the providential action of a single being for the varied operations of numerous divinities which had been before imagined. In the same way, in the last stage of the metaphysical system was substituted one great entity (Nature) as the cause of all phenomena, instead of the multitude of entities at first supposed. In the same way, again, the ultimate perfection of the positive system would be (if such perfection could be hoped for) to represent all phenomena as particular aspects of a single general fact, such as gravitation, for instance." Evidences of this law are to be found in the

history of the sciences, in the history of the individual mind, in the theoretical considerations that the mind feels a necessity, in dealing with numerous and complex data, of having some theory by which to connect them; that it could in the beginning have only such a degree of intelligence as the theoretical conception of things in general embodies; that the theological view would naturally stimulate inquiry, and lead on to the metaphysical (which is merely transitional), and thence to the positive. The positive view, then, is the scientifically true view; Positive Philosophy, the true philosophy.

Characteristics and Problem of Positive Philosophy. — Positive philosophy has three general characteristics: (1) it regards all phenomena as subject to invariable natural law; (2) it attempts accurately to discover these laws, with a view of reducing them to the smallest number possible; (3) it rejects speculation about origin and purpose, and simply analyzes accurately the circumstances of phenomena, connecting them by the natural relations of succession and resemblance. Every sort of knowledge reaches the positive stage. Every branch of knowledge becomes a part of positive philosophy as it acquires generality, simplicity, independence. Every branch must sooner or later acquire the positive character. Social phenomena, as being the most individual, the most complex, most dependent on others, are the latest to be brought within the positive sphere, — sociology the latest branch of positive philosophy. The problems of positive philosophy are: (1) to establish a social physics (to bring sociology fully within the sphere of the positive); (2) to form a system of the positive sciences. The former problem is primary; the latter, secondary.

Advantages of the Positive Philosophy. — There are four advantages to accrue from the study of the positive philosophy: (1) the discovery by experiment of the laws which rule the intellect in the investigation of truth; (2) the regulation of education; (3) the promotion of

the progress of the special sciences; (4) the discovery of a basis of social reorganization. (1) Introspective psychology pursues a false, illusory method; the mind cannot observe its own phenomena; emotion interferes with accurate observation; the method of introspection cuts off the phenomena of mind from their causes and effects. (2) Education is theological and metaphysical chiefly; it may be brought to the positive stage by positive philosophy. (3) The positive philosophy will supply general principles by which the sciences may receive new applications, as algebra and geometry did when generalized by Descartes. (4) Positive philosophy will do away with the existing social anarchy by doing away with the intellectual anarchy — the existence of the three incompatible philosophies — of which it is the consequence.

The Hierarchy of the Positive Sciences. — Human effort is either theoretical or practical. We have to do here only with the former. Science, or theoretical effort, is either abstract or concrete. The former have to do with laws, and are fundamental. With them alone is philosophy concerned. The order of science must be determined as nearly as possible according to the general principle that the simpler and more general come first, and the more complex and particular stand last. According to this principle we should have the sciences arranged in nearly the historical order of their perfection, as follows: Astronomy (geometrical and mechanical), Terrestrial Physics (embracing Physics properly so called and Chemistry) and Organic Physics (including Physiology and Social Physics). The principle which gives this order to the whole body of science arranges the parts of each science. The foregoing arrangement gives the sciences in the order of the perfection, the simpler and more precise possessing the higher degree of perfection. It also shows the order in which they must be studied, since no science can be "effectually pursued without the preparation of a competent knowledge of the anterior science on which it de-

pends." (The advantage of all this for Pedagogy is obvious.) The positive method, though always fundamentally the same, receives different applications in the different sciences, and to be thoroughly understood must be studied in the different sciences. A variety of the methods applicable to one science cannot be transferred without modification to another science. — Mathematics, omitted from the list of the sciences as given, is, and has been since the time of Descartes and Newton, the basis of the whole of Natural Philosophy, rather than a particular science. Regarded as a particular science, it would stand at the head of the list.

Sociology. — We pass over entirely Comte's treatment of the first four of the five particular sciences which constitute the entire circle of sciences, and speak merely of the fifth, Sociology, a science of which he claimed to be the founder.[1] Sociology, or the Science of Society, has two general conditions to consider; *viz.*, those of order and progress in civilization, the two being necessarily inseparable aspects of one principle. It has accordingly the two general divisions, — Social Statics and Social Dynamics. The method of Sociology is the same as that of the other sciences, — the method of combined induction and deduction. So far as it merely observes and collects facts peculiar to its sphere and draws from them empirical laws, it is inductive in its procedure; so far as dependent on the anterior sciences of Physiology, Chemistry, Physics, etc., it is deductive in its procedure. The empirical laws it arrives at by induction, must harmonize with the deductions from the principles drawn from anterior sciences. Social Statics has for its "object the positive study of the mutual action and reaction which all portions of the social system continually exercise upon each other." The elements it has to deal with are the

[1] We may quote here a remark which occurs in Professor Huxley's "The Advance of Science in the Last Half Century," to the effect that Comte "had no adequate acquaintance with the physical sciences even of his own time." In this Comte reminds one of Bacon.

individual, the family, and society as such. The family was "originally the sole, and always the principal, source of the social feelings, and the only school open to mankind in general in which unselfishness can be learned, and the feelings and conduct demanded by social relations be made habitual." Society is founded on a division of employment and a co-operation of human beings. This division and this co-operation require a wise supervision, which can be exercised only by Positive philosophers, in the capacity of authorized educators. Social Dynamics, which treats of the laws of the evolution of society, has for its fundamental law that of the "constant and indispensable succession" of the three general states — theological, metaphysical, positive — through which our intelligence passes in all speculations. Corresponding to these three states are three forms of social life, — the military, the legal, and the industrial. The most important transition yet undergone by mankind is that which gave rise to industrial organization, which substituted serfdom for slavery, extended the influence of domestic affections, tended to establish castes, and to unite different populations, etc. Social regeneration must, primarily, be speculative or intellectual: in the future the speculative class will rule, because of the need men will naturally come to feel for its influence in affairs of life.

The Religion of Humanity. — Society is, in its highest idea, a harmony of individual and collective humanity. This renders it obligatory upon the individual to subordinate himself to collective humanity, to live a life of unselfish love and sacrifice as far as may be possible. Humanity is the, for us, Supreme Being, the only being we can know and worship. This *Grand Être* is most perfectly symbolized in woman, who, accordingly, living or as preserved in memory, should be made an object of *private* worship, as collective humanity is of public worship. The ministers of the religion of humanity are, in the family, the women of the family, and in society at large, a class of (male) priests who, without power to command, have authority as advisers

and remonstrators, as the instructors of youth and as the sole depositaries of the medical art. Though philosophers, they subordinate their intellectual powers and attainments to the ends of the social feeling, which is the essence of religion. The religious motto of the Positivist is, "*L'Amour pour principe, l'Ordre pour base, et le Progrès pour but,*" by "progress" being understood the continued increase of mastery of man's defects and, in particular, those of the moral nature.

Result. — As regards Comte, it seems sufficient merely to say that his "Positivism" is essentially that "scientific" (semi-rationalistic) empiricism which in Hume (who, as pointed out by J. S. Mill, went a step — though but a step — beyond the position of Comte even) logically led to the purest scepticism. We turn now to the thinker who by almost universal acknowledgment logically put an end to all empiricism in philosophy, — Immanuel Kant, — noting, as we leave Comte, that his doctrines have exercised a decided influence upon the later English thinkers, in particular J. S. Mill and Lewes, and some of the Germans, *e. g.*, Eugen Dühring.

§ 112.

(3) *German Systems.* — Among the German systems (rather too numerous to be fully specified here) taken as a group there appears such an order of development that they may, even chronologically, almost, be arranged in the following succession: (1) Idealists, — (*a*) subjective, as Kant, Reinhold, Fichte, Schlegel, Schleiermacher, etc.; (*b*) objective, as Schelling and his disciples; (*c*) absolute, as Krause, Hegel, etc.; (2) Realists, as Jacobi, Schopenhauer, Herbart, etc.; (3) Ideal-Realists, as Beneke, Trendlenburg, Von Hartmann, Lotze, etc. (We overlook, for the present, minor, sceptical, and materialistic systems.) The German systems, whether regarded individually or as a group, exemplify — as it scarcely needs be said — more fully than any others of this period the conception of system, or totality. Ger-

man philosophy is in a very striking degree an organic whole, even with its great number of systems. It is so because its standpoint is virtually that of the "whole," since it is in a very eminent degree that of *self*-consciousness. The founder of German philosophy and its ruling genius is, of course, Immanuel Kant.

§ 113.

(1) *Immanuel Kant*[1] (1724–1804). — Immanuel Kant, son of an honest and industrious saddler of limited means, was born in Königsberg, Prussia. The strong piety of his parents provided a thorough religious and moral training at home for Immanuel, and would have destined him for the ministry. He attended, between the years 1732 and 1740, the gymnasium in his native town, at whose head was the Pietist Franz Albert Schulz, a pastor, and at one time professor of theology in the University of Königsberg. At the gymnasium Kant showed special fondness and aptitude for the study of the Roman classics, from which he received impressions that had a life-long influence over him, — all the more because he was not especially familiar with the ancient classics in general. In 1740 he entered the University of Königsberg, primarily to study theology, though mathematics and philosophy came in time to have greater attractions for his mind. Thrown almost entirely upon his individual resources by the death of his father (in 1746), Kant spent nine years as a private tutor, in several families, continuing meantime his learned studies and interesting himself in individual social culture as well. Duly qualifying as a privat-docent, he began in 1755 what proved to be an unusually successful career as university lecturer. He lectured first on mathematics and physics; afterwards on logic, metaphysics, morals, physical geography, natural theology, anthropology, philosophical encyclopædia, — a wide range of subjects. After fifteen years — a rather long

[1] See Watson's "Selections from Kant," Zeller, Ueberweg, Erdmann, Noack, "Encyclopædia Britannica," Caird, Kant's Works, etc.

period, considering the value of his services and his popularity — as privat-docent, he received the appointment of professor of logic and metaphysics in the university, having in the interval failed in the attempt to secure a coveted appointment as *professor extraordinarius* in mathematics, and declined offers from the universities of Erlangen, Jena, Halle, as well as the chair of poetry — for which he considered himself unsuited — at Königsberg. He held his professorship until, in 1797, the approach of old age and failing powers caused his resignation. His popularity as a lecturer and his fame as a writer were such as to make his name a very great one in Europe even long before his death. (Privately also he was a strong personality; not only intelligent on general topics, but also of a very social disposition, he had many friends and admirers, and particularly among the tradespeople of Königsberg.) He felt a strong interest in the humanitarian political movements in France and America, and was open in the expression of his convictions. His early Pietistic training had a life-long influence over him, not, however, with the effect, as might perhaps be expected, of preserving the hull, but the real kernel, of religion and the spirit of religious liberty, — though he did not, it is true, dare disobey a royal mandate (issued *à propos* of his treatise on religion) that he should be silent on religious topics. He did not regularly attend church, — indeed, never would enter a church; though his duty as rector of the university would seem to have required him at stated times to do so at the head of academic processions. Physically he was weak and inferior; but by a strict regimen in living, maintained health and power to labor industriously.

Kant's Earlier Development and Works. — Considered with reference to the entire course of his philosophical development, Kant belongs to an old and to a new order of things, — to the second as well as to the third period of modern philosophy. He fully imbibed the philosophic and scientific ideas current in his age and particularly in the universities of Germany, and it was only quite gradually

that he outgrew, as far as that might be possible, the Leibnitzo-Wolffian metaphysics and the Newtonian physics. His first lectures, based on the works of recognized authorities, merely repeated, with no very great modification, their views. In his "Allgemeine Naturgeschichte und Theorie des Himmels" ("Universal History of Nature and Theory of the Heavens"), (1755), he asserts the Leibnitzian doctrine of the compatibility of a mechanical with a teleological explanation of nature, though rejecting the theory of the divine creative activity. In a somewhat later work on "Optimism" (1759), and in works on the Lisbon Earthquake (1756), he upholds the Leibnitzian thesis that "the existing universe is the best possible, and all parts are good in view of the whole." In the "Physicalische Monadologie" ("Physical Monadology"), (1756), there is a departure from Leibnitzo-Wolffian principles in the assertion of the existence of simple substance occupying real space, and of the supremacy in logic of the principle of identity (over contradiction), and the denial of pre-established harmony, the *principium identitatis indiscernibilium*, and the validity of the ontological proof of the existence of God. The work "Der einzig mögliche Beweisgrund zu einer Demonstration des Daseins Gottes" ("The only Possible Proof of the Existence of God") substitutes for the ordinary ontological, teleological, and cosmological proofs of the existence of God an "*a priori proof*" reposing on the principle that possible being presupposes necessary being as its cause, and an *a priori* proof the substance of which is that unity in the world points to the existence of a God. Throughout the greater part of the earlier period Kant treats space as the order of relation between bodies, — *i. e.*, as objective or quasi-objective, in accordance with the principles of his "Physical Monadology." As to philosophical method, Kant, without ceasing to insist on mathematics, emphasizes more than Leibnitz had done the "analysis of experience, and the explanation of phenomena by the rules which such analysis implies." Finally, steering between the formalism

of the Wolffian and the unscientific procedure of mere empiricism, Kant, in works of the years 1765 and 1766, *viz.*, "Nachricht von der Einrichtung seiner Vorlesungen über die Philosophie," etc. ("Announcement of the Arrangement of his Lectures on Philosophy"), and "Träume eines Geistersehers erläutert durch Träume der Metaphysik" ("Dreams of a Spirit-seer explained by Dreams of Metaphysics"), is to be found declaring against *a priori* dogmatic metaphysics, asserting that no finished philosophy exists, that questions of a "purely ideal nature, which do not fall within the sphere of sensible experience, are not merely impossible and beyond the horizon of human knowledge, but are entirely gratuitous and futile."[1] Here, then, is Kant's "first direct renunciation of and attack on traditional metaphysics" (Zeller). According to Kant's own confession (*e.g.*, in the Preface to the "Prolegomena" mentioned below), it was Hume's criticism of the category of causality that "interrupted his dogmatic slumber" and caused him to attempt (as he did) the "reform of metaphysics."

Kant's Later Works. — The first positive attempt made by Kant towards a reformation of metaphysics appears in a work published in 1770, "De Mundi sensibilis atque intelligibilis Forma et Principiis." This consists in the treating of space and time, not indeed as purely subjective forms of human knowledge, but as merely "phenomenal correlates of the divine omnipresence and eternity" (Ueberweg). A further movement would have been to treat substance, causality, and other categories as ideal, and not real. This was positively done in the first of the works now generally recognized as expounding the distinctively Kantian standpoint, *viz.*, the "Kritik der reinen Vernunft" ("Critique of Pure Reason"), (1781). Besides the "Kritik der reinen Vernunft," we have to mention here the "Prolegomena zu einer jeden künftigen Metaphysik die als Wissenschaft wird auftreten können" ("Prolegomena to every Future Metaphysic which can claim to be a Science"), (1783);

[1] See Noack.

"Grundlegung zur Metaphysik der Sitten" ("Foundation of the Metaphysics of Ethics"), (1785); "Metaphysische Anfangsgründe der Naturwissenschaft" ("Metaphysical Principles of Natural Science"), (1787); second edition of the "Kritik der reinen Vernunft," containing important additions and alterations (1788); "Kritik der praktischen Vernunft" ("Critique of Practical Reason"), (1788); "Kritik der Urtheilskraft" ("Critique of the Faculty of Judgment"), (1793); "Die Religion innerhalb der Grenzen der blossen Vernunft" ("Religion within the Limits of Mere Reason"), (1793); "Metaphysik der Sitten," — I. "Metaphysische Anfangsgründe der Rechtslehre," II. "Metaphysische Anfangsgründe der Tugendlehre" ("Metaphysics of Ethics," I. "Principles of Theory of Right," II. "Principles of Theory of Virtue"), (1797).

Philosophy: Introduction. — Philosophy has hitherto pursued two opposed paths, — one of dogmatic assertion and of implicit confidence in human reason; the other of doubt and distrust of human reason. Neither dogmatism nor scepticism — for these are the two paths — proves its own assertions or absolutely disproves those of the other. There remains a third way; namely, to investigate and survey — to "criticize" — the faculty of human reason as a faculty for *a priori* knowledge of that which transcends mere experience; and this to the end that we may know how to avoid the subreptions of reason and the illusions springing therefrom. Philosophy, that is to say, is, first of all, instead of dogmatism (Leibnitzo-Wolffism) or scepticism (Humism), "criticism." After criticism has done its work, metaphysics, if criticism shall show it to be possible, begins. Now, human reason — *i. e. pure*, non-empirical, human reason — has the three branches of theoretical reason, practical reason, and the faculty of judgment intermediate between the two former; and the critique of human reason is a critique of theoretical reason, a critique of practical reason, and a critique of the faculty of judgment.

The Critique of Pure Reason: Introduction; Problem of the Critique of Pure Reason. — "Though all our knowledge begins with experience, it does not follow that therefore it all derives from experience."[1] There is, in fact, an element in knowledge that is in a manner independent of experience, an element that may properly be designated as *a priori*, in contradistinction to an element deriving immediately from experience itself, — an *a posteriori* element. Every proposition of mathematics, for example, possesses a necessity and universality characteristic of *a priori* knowledge alone.[2] And, in physics, such a proposition as that every change has a cause, is manifestly universal and necessary, *i. e.*, *a priori*. There is, further, a class of propositions in which are contained deep interests of reason, but which, transcending the bounds of all possible experience, make it necessary to determine the possibility, principle, and limits of all *a priori* cognition. *A priori* propositions or judgments are either analytic or synthetic. An analytic judgment in general is a judgment the predicate of which adds no idea to the subject not already in it implicitly. A synthetic judgment is a judgment of the opposite character, — its predicate lies outside of the notion constituting the subject. In an analytic judgment, the connection of subject and predicate is thought through identity; in the synthetic it is not so thought. Analytic judgments are judgments of explication merely; synthetic judgments are judgments of extension. The proposition, "All bodies are extended," is an example of an analytic proposition; for the notion of extension is contained in that of body. In the proposition, "All bodies are heavy," the predicate is outside the notion of body as such; and the proposition, therefore, is synthetic. Now, the judgments of experience as such are

[1] See "The Philosophy of Kant in Extracts" (selected by Professor Watson, of Kingston), from which the following brief summary of Kant's "Critiques" is very largely borrowed.

[2] Compare Hume's assertion (above, pp. 192-193).

synthetic. Only by experience do we come to connect the notion of weight with that of body; but the judgments of experience are as such *a posteriori*. The question arises, Are, and if so, how are, *a priori* synthetic judgments possible? The sciences of mathematics and natural philosophy present numerous examples of *a priori* synthetic judgments; the judgments of mathematics are in fact all such. *A priori* synthetic judgments in natural philosophy are such as, — In all changes of the corporeal world, the quantity of matter remains the same; In all communication of motion, action and reaction are equal. All notions of the supersensible are *ex hypothesi* synthetic: in its *aim*, at least, metaphysics consists in none other than *a priori* synthetic judgments. The problem of pure reason is thus comprised in the question, How are *a priori* synthetic judgments possible? *i. e.*, How are *pure* mathematics, pure natural philosophy, pure metaphysics possible? This problem has to be solved by a distinct science, — the Critique of Pure Reason; reason, that is to say, which, though present in all experience, is not derived merely from experience. The divisions of this science may, anticipatorily, be laid down as follows: (1) Theory of the Elements of Pure Reason; (2) Theory of the Method of Pure Reason; and as there are two stems of cognition, — sense, which receives, and understanding, which thinks, objects, — the Theory of Elements has for its grand divisions Transcendental Æsthetic (or the Science of Sensibility) and Transcendental Logic (Science of the Understanding). The science thus outlined — Criticism — may be termed Transcendentalism, as having to do with *a priori* knowledge, or knowledge transcending experience as such. It is *not transcendent; i. e.*, does not go beyond experience in its totality, or all experience whatever, — rather it shows the fallacy of such "transcendent" use of reason.

Transcendental Æsthetic. — If we take away from "what constitutes our consciousness of body the elements of it belonging to understanding, — as substance, force, divisi-

bility, etc., — and the elements belonging to sensibility, — as impenetrability, hardness, color, etc., — there still remain the two attributes of extension and figure. "These belong to *pure* perception, which as mere form of sensibility, and without any actual object of sense or sensation, exists in the mind *a priori*. It is the pure, or *a priori*, principles in general of sensibility that form the subject-matter of the Transcendental Æsthetic." The principles of sensibility are comprised in the two forms space and time. Space is the form of what may be designated as the outer sense; time, of the inner, — or rather, since all mental states, whether the object be outer or inner, presuppose time, of sensibility in general. That time and space are pure, and not empirical, appears from the facts [among others] that they are in a manner preconditions to the existence of phenomena; they cannot be 'thought away' or abstracted from, though objects be removed from them. That they are forms of *per*ception, and not *con*ception, is proved by the fact that their parts do not precede the wholes as individuals do a general abstract notion formed from them. The parts of time and space are not *logically* subsumable under the whole; space is essentially a unit, and different times are only parts of the same time. A further proof of the subjectivity of space is found in the fact that our space-distinctions are ultimately relative, as shown by the terms "left," "right," etc.[1] An indirect proof that space and time are subjective and *a priori* is the fact of the practical reality of the science of pure mathematics. Space and time are therefore pure perceptions, and as such render possible synthetic propositions *a priori* of a certain kind. Their limitation consists in the fact that they concern objects only so far as objects are perceptions of sense; they have no reference to so-called things-in-themselves. Regarded as absolute objective realities, space and time lose their values: for if they are

[1] See Prolegomena, § 13.

conceived as substance, they become self-subsistent entities, "having no other purpose than just to embrace all that is actual;" and if they are thought as attributes or as relations among things, they are not principles of the mathematical knowledge of things. As pure or *a priori* forms of perception they render possible the science of pure mathematics. If they were empirical perceptions, no universal and necessary propositions could be based on them; if they were mere conceptions, they would furnish no synthetic propositions. As pure and non-empirical and as intuitions, or pure perceptions, they are both *a priori* and *synthetic*, and hence are capable of supporting a pure mathematics. It is possible to conceive a sort of perception which, instead of being, like ours, "possible only through the perceptivity of the subject being affected by an object," is such that through it the very being of the object is given, — an original intellectual perception such as can belong only to God. It is possible that there are other beings besides human beings, having a form of perception like ours as regards space and time; so their perceptions must, like ours, be a sensible, not an intellectual, perception.

Transcendental Logic: Introduction. — Transcendental Logic differs from ordinary general logic in that it does not abstract from *all* matter of cognition, though it certainly does from all merely empirical matter of cognition; since, in order to show how the understanding *thinks* what sense has *received*, the pure conceptions have to be considered, not only in themselves, but in their relations to pure perception. Transcendental logic, therefore, instead of being (like the ordinary Scholastic logic) subjective and general, is objective,—a logic of cognition and truth. According as it treats of the legitimate application of pure conceptions to the matter of pure sense or of their illegitimate employment in a sphere beyond sense, it may be termed either Analytic or Dialectic. Analytic, since conceptions have to be considered both in themselves and in their applications

to objects in general, has two parts, — the Analytic of Notions, and the Analytic of Judgments.

The Analytic of Notions: The Categories. — The office of the understanding in thinking the matter of sense is to bring into unity in various ways the units of cognition furnished by sense. This it does through various forms of activity, or functions. As all acts or functions are judgments, what the various forms of the constitutive activity of the understanding are in relation to experience, may be determined from the inspection of a table of logical judgments. Logical judgments may be viewed with regard to quantity, quality, relation, modality. As to quantity, judgments are universal, particular, singular; as to quality, judgments are affirmative, negative, infinite; as to relation they are categorical, hypothetical, disjunctive; as to modality, problematic, assertoric, apodictic. The pure synthetic acts, the pure conceptions of the understanding, *or the logical categories*, are, accordingly, as follows: of quantity, — *unity, plurality, totality;* of quality, — *reality, negation, limitation;* of relation, — *inherence and subsistence* (*substance and accident*), *causality and dependence* (*cause and effect*), *communion* (*reciprocity of action and reaction*); of modality, — *possibility and impossibility, existence* (*actuality*) *and non-existence, necessity and contingency.* The first two groups of categories, which have to do with objects of perception, may be denominated mathematical categories; the last two, having to do with the existence of objects, dynamical categories. A mere glance suffices to show that the third in each of the four groups "owes its origin to the union of the second with the first: totality is merely plurality regarded as unity; limitation is reality in union with negation; reciprocity is substance exchangeably causal; and necessity, lastly, given, as it were, by possibility itself."

The Transcendental Deduction of the Categories. — It has now to be shown *how* — by what *right* or *law* — the categories can have application in relation to objects of

experience, or furnish conditions of the very possibility of all perception and experience of objects. All thought, or activity of the understanding, consists in the reference to a single principle, of a manifold (furnished by sense). Unless it be possible that *I think* accompany all my perceptions, they are nothing for me. And this reference of the elements of my consciousness to myself which constitutes a necessary part of consciousness depends on the possibility of my conjoining in a single consciousness the given elements of consciousness. There is, therefore, presupposed by the single consciousness and the accompanying apperception of self, an original synthesis. The "ultimate principle of the possibility of all perception in relation to understanding is, then, that the unity of every perceptive complex must stand under conditions of the original synthetic unity of apperception." Matter of sense which has submitted to this condition has acquired objectivity. Now this objectivity is a fixed unity wrought by the understanding under the guidance of self-consciousness; and as all acts of the understanding are comprised in the categories, the categories, at the same time as they are instrumental in objectifying the manifold of sense, themselves receive reality. In their original character the categories have no other application in cognition than to matter of experience, since thought or judgment requires a given manifold, without which it would be merely ideal, "perceptions without conceptions being blind, conceptions without perceptions, empty."

Analytic of Judgments. — We have next to consider the sense-conditions under which the application takes place, and then the synthetic propositions (judgments) which *a priori* result from the categories under these conditions and underlie all other *a priori* judgments.

Schematism of the Categories. — For the application of the categories to the affections of sense there is required a third somewhat (besides affections and categories), — a *tertium quid*, — partaking of the characters of both, like

both non-empirical, but intellectual in one aspect, and sensuous in another. This *tertium quid* is pure time. Time may be viewed as regards range or extent (as admitting the existence of units singly, in a group, or as a sum); as regards content, — as having a content in general, not having any content, having a definite content; as regards order of content, — order being one of permanence, irreversible succession, reversible succession, *i. e.*, co-existence; as regards comprehension, — being in this regard indefinite and particular time, definite and particular time, and universal time. These time-relations constitute a system of schemata by which the categories may be mediated with the affections of sense. Time-extent with its modes becomes the schema of the general category of quantity, with its modes; time-content with its modes, of quality with its modes; time-order with its modes, of relation with its modes; time-comprehension with its modes, of modality with its modes. According to this arrangement, the schema of substance, *e.g.*, is permanence of order of time; of cause, irreversible succession; of reciprocity, co-existence; of necessity, universal time, *i. e.*, always; etc. The establishment of this schematism of the categories effects the mediation between understanding and sense in both directions (*i. e.*, from understanding to sense, and *vice versa*), and completes the demonstration of the theorem that knowledge originates *within*, but not solely *from* experience. The faculty of the schemata (and hence also the mediator between pure sense and pure understanding) is Transcendental Imagination.

The System of Principles of the Pure Understanding. — Distinguishing the activities of the understanding as analytic and synthetic, we have as the highest principle of the former the law that "no subject can have a predicate that contradicts it, *i. e.*, the principle of contradiction;" and as the highest principle of the latter, the law that "every object is subject to the necessary conditions of a synthetical unity of the manifold of intuition in a possible

experience." The principle of contradiction is, for the most part, merely a negative criterion of truth: it has a positive use in enabling us to deny the opposite of that which "exists and is thought as a concept in our knowledge." It is a general and altogether sufficient principle of analytical knowledge. Our highest principle of synthetic judgment shows us at once that our best guide to the system of particular synthetic principles is the table of categories. These principles are: (1) All intuitions (sensations) are extensive magnitudes, — the principle of the "Axioms of Intuition" (corresponds to the category of quantity); (2) In all phenomena the real, which is an object of sensation, has intensive magnitude, or degree, — the principle of the "Anticipations of Perception" (corresponding to category of quality); (3) Experience is possible only through the idea of a necessary connection of phenomena, — the principle of the "Analogies of Experience" (corresponding to the category of relation). First Analogy. In all changes of phenomena, substance remains the same, and its quantum in nature is neither increased nor diminished, — the Principle of Permanence (corresponding to category of substance). Second Analogy. All changes occur according to the law of connection of cause and effect, — principle of sequence, according to the law of causality (corresponding to the category of causality). Third Analogy. All substances, in so far as they can be conceived as coexisting in space, are in complete reciprocity, — principle of coexistence according to the law of reciprocity (corresponding to category of reciprocity). (4) Postulates of Empirical Thought: (*a*) What agrees with the formal conditions of experience (in intuition and conception) is possible; (*b*) What agrees with the material conditions of experience (sensation) is actual; (*c*) That, the connection of which with the actual is determined according to the universal conditions of experience, is necessary or exists necessarily. — "These primary principles of the understanding are the

principles *a priori* of the possibility of experience, and have no application whatever to anything beyond possible experience."

Ground of Distinction of Phenomena and Noumena. — The truth that the categories have no application beyond experience, overthrows that boasted Ontology, which presumes to supply in a systematic form various sorts of synthetical knowledge *a priori* of things by themselves (for instance, the principle of causality), and necessitates the substitution of the more modest Analytic of the Understanding. But there is a certain sense in which the categories may be said to extend farther than sensuous perception; and the notion of noumenon, *i. e.*, of a thing which can never be thought as an object of the senses, but only as a thing in itself (by the pure understanding) is not self-contradictory. For the categories apply to objects in general without regard to the special mode of sensibility in which they may be given; though we cannot maintain that sensibility is not for us the only form of perception. The conception of the noumenon is necessary to keep sensuous perception from extending to things in themselves: it is useful as a limitative conception. But it has no further use, and the real division of phenomena from noumena and of the world into a sensible and intelligible world is inadmissible. By means of the conception of noumenon the understanding receives a sort of negative extension and independence; it limits itself, instead of being limited merely by sensibility. Metaphysics, as *a priori* science of the supersensible, is impossible.

Transcendental Dialectic. — Inasmuch as the activity of the understanding is in relation to knowledge, as distinguished from mere thought, dependent upon that of sense, which is changing and relative, it is a conditioned activity. The "principles" of the understanding are, absolutely viewed, rules rather than principles. The faculty of pure principles, the activity of which is unconditioned, is pure reason. Reason does not "look to experience," or to any

object but to the understanding, in order to impart *a priori* through notions to its manifold kinds of knowledge a unity that may be called the unity of reason (and is very different from the unity which can be produced by the understanding). Since Reason is the faculty of the unconditioned, the question whether pure reason contains synthetical principles and rules *a priori* must be answered in the affirmative or negative according as it is determined whether or not the series of the conditioned extends to the unconditioned. If it does not, the objective application of the pure principles of reason must result in illusion. As in general logic that part of the subject dealing with false appearances of truth is known as dialectic, the corresponding division in this science may be termed Transcendental Dialectic. Logically viewed, reason is the faculty of inference, as understanding is of judgment; and the Transcendental Dialectic naturally falls into the two grand divisions: (1) Conceptions or Ideas of the Pure Reason, and (2) Syllogisms of Pure Reason.

Conceptions or Ideas of Pure Reason. — Reason being the faculty of inference, its conceptions have to be drawn from the forms of the syllogism, as the conceptions of understanding were from those of judgments. Syllogisms are categorical, hypothetical, and disjunctive. The unconditioned viewed categorically becomes the absolute unity of the thinking subject; hypothetically, the absolute unity of the series of phenomena; disjunctively, the absolute unity of the condition of all objects of thought in general. The Notions or Ideas of the reason are, in other words, those of the Soul, of the World, and of God. These Conceptions or Ideas of the reason necessarily have no corresponding object in sense, and may therefore be termed transcendental. They are, however, not mere fancies, but are supplied to us by the very nature of reason, and refer by necessity to the whole use of the understanding. And they are "transcendent," as overstepping the limits of all experience, which can never supply an object adequate to the

transcendental idea. "There is among the transcendental ideas themselves a certain connection and unity by which pure reason brings all its knowledge into one system. There is, in the progression from our knowledge of ourselves (the soul) to a knowledge of the world, and through it to a knowledge of the Supreme Being, something so natural that it looks like the logical progression of reason from premises to a conclusion."

The Syllogisms: Dialectical Conclusions of Pure Reason. — If I conclude from the transcendental or subjective notion of the thinking subject, which contains no manifoldness, the absolute unity of the real subject itself, of which I have no notion, I employ a certain dialectical syllogism (which we will call the *transcendental paralogism*). Concluding from the fact that my notion of the unconditioned synthetic unity of the series of conditions to any given phenomenon is always self-contradictory, the correctness of the opposite unity, of which, however, I have no real conception, gives rise to a second class of dialectical syllogisms, which in their paired opposition may be termed *antinomies* of reason. A third class of dialectical syllogisms — which may be called the *Ideal* of Pure Reason — arises when I conclude from the totality of conditions under which objects in general, so far as they can be given to me, must be thought, the absolute synthetical unity of all conditions of the possibility of things in general, or, in other words, when I conclude from things which I do not know according to their mere transcendental notion, a Being of all beings, which I know still less through a transcendent notion, and of the unconditioned necessity of which I can form no notion whatever.

Transcendental Paralogism: Criticism of Rational Psychology. — The idea of the unconditioned, applied to self-consciousness, or the "I think," accompanying all synthetic activity of the understanding, requires that the ego, as such consciousness, be regarded as logical subject of all its states (*i.e.*, as substance), as simple (in quality), as a unit (in

quantity), as distinct from a certain contraposed other (modality). But a paralogism is committed when assertions made by the ego as merely subjective, or as merely conceived, concerning itself, are converted into assertions made of an objective somewhat capable of being given in perception, and the soul is asserted to *be* a substance, to be simple and individual and to exist independently of other substances. It would be equally wrong, indeed, to assert that the soul is *not* a simple, single, individual substance, or, in other words, that it is material in nature. The soul not being given to us as an object of sense, we have no matter as regards it to which the categories of the understanding — substance, simplicity, unity, individuality — can apply. Rational Psychology as a positive science or as anything other than a criticism of ordinary dogmatic, empirical, and sceptical views of the soul, is an impossibility.

The Antinomy of Pure Reason: Criticism of Rational Cosmology. — The idea of the unconditioned applied to phenomena gives rise to four pairs of antithetical ideas corresponding to the four classes of categories, as follows: (1) The finitude and infinitude of the world of phenomena in time and space; (2) The infinite and the finite divisibility of the real in time or phenomena; (3) Free and necessary causation of phenomena; (4) Existence and non-existence of a necessary Being belonging to the world either as part or as the cause of it. Propositionally expressed, these ideas are: (1) The world has a beginning in time and is limited in space (Thesis); The world has no beginning and no limits in space, but is infinite in respect to both time and space (Antithesis). (2) Every compound substance in the world consists of simple parts, and nothing exists anywhere but the simple, or what is composed of it (Thesis); No compound in the world consists of simple parts, and there exists nowhere in the world anything simple (Antithesis). (3) Causality according to the laws of nature is not the only causality from which all phenomena of the world can be deduced; in order to account for these

phenomena it is necessary also to admit another causality, that of freedom (Thesis); There is no freedom, but everything in the world takes place entirely according to the laws of nature (Antithesis). (4) There exists an absolutely necessary Being, belonging to the world either as a part or as the cause of it (Thesis); There nowhere exists an absolutely necessary Being either within or without the world as the cause of it. The solution of the first of the foregoing antinomies is found by a distinction between the infinite and indefinite. An infinite (definite) quantity is for us an impossible notion; in trying to realize such an idea (which we get only by a misapplication of the notion of the unconditioned to quantity), we merely go on in thought *in indefinitum*. The whole world of phenomena, as regards quantity, is, absolutely speaking, neither infinite nor finite for us in concrete thought, but indefinite, or capable of further determination (a fact tallying with the subjectivity of space). The solution of the second antinomy is found by distinguishing between the infinitely divisible and the infinitely divided, — the latter being an impossible conception. Body, in other words, is, like space, divisible *in indefinitum* without consisting of an infinite number of parts. "What applies to a thing by itself represented by a pure notion of the understanding, does not apply to what is called substance, phenomenon. This is not an absolute subject, but only a permanent image of sensibility, nothing, in fact, but perception, in which nothing unconditioned can ever be met with." The resolution of the third and fourth antinomies depends on the distinction between phenomena and noumena. The thesis holds true of the world regarded as noumenon, the antithesis, of the world viewed as phenomenon. Man's knowledge of himself through mere apperception is proof of his freedom in relation to nature, or the world of sense. The possibility of a free cause appears, apart from the fact that a phenomenal and necessary cause (antecedent) cannot originate anything, also from the existence of practical or moral imperatives, through which man

recognizes himself as being partly outside as well as within the world of phenomena. "The understanding can know in nature only what is present, past, or future. It is impossible that anything in it *ought to be* different from what it is in reality, in all these relations of time. If we look only at the course of nature, the ought has no meaning whatever." This "ought" expresses a possible action, the ground of which cannot be anything but a mere notion; while in every natural action the ground must always be a phenomenon. In asserting the existence of a natural law of causation, we do not — if we distinguish between phenomena and noumena — contradict the causality of freedom. It is a peculiarity of the Fourth Antinomy that it carries us outside of the world of phenomena, "since there cannot be in the whole series of dependent existence any unconditioned link the existence of which might be considered as absolutely necessary."

The Ideal of Pure Reason: Criticism of Transcendental Theology. — Further removed from objective reality than the Idea, is what may be termed the Ideal, or the idea not merely *in concreto*, but *in individuo; i. e.*, an individual thing determinable or even determined by the idea alone. Virtue and human wisdom in its perfect purity are ideas, while the wise man (of the Stoics) is an ideal, *i. e.*, a man existing in thought only, but in complete agreement with the idea of wisdom. The idea gives rules, the ideal serves as the archetype for the perfect determination of the copy. Reason postulates such an ideal in the notion of an *ens realissimum, i. e.*, a being possessing in itself all possible attributes of reality. The notion of the *ens realissimum — ens originarium, ens summum, ens entium*, simple being, cause of all others — is the only true ideal of which human reason is capable, because it is in this case alone that a notion of a thing which in itself is general is completely determined by itself and recognized as the representation of an individual. "It is self-evident that in order to represent the necessary and complete determination of

things, reason does not presuppose the *existence* of a being that should correspond to this ideal, but its *idea* only, in order to derive from an unconditioned totality of complete determination the conditioned one, that is, the totality of something limited." To suppose the existence of a being corresponding to the ideal, is to apply outside of experience an idea which, though having the highest validity in experience as such, has for us no application outside of it. Upon this misapplication of the ideal of pure reason rest the three speculative proofs, so called, of the existence of God, — ontological, cosmological, physico-theological ("teleological"). The *notion* of the *ens realissimum* — to criticise the ontological proof first, since the others depend upon it — does not necessarily imply the *existence* of such a being. Existence is not an attribute; if possessed by an *ens realissimum*, it would not add anything to the notion of it. Hence it is not to be derived from it, any more than a hundred real dollars are derivable from the mere notion of a hundred dollars. We never mistake the mere notion of an object of sense for the existence of it. The cosmological proof, or proof *a contingentia mundi*, argues from experience to the existence of *necessary* being, *assuming* that *necessary* being implies an *ens realissimum*. Rather should necessary being be deduced at once from the notion of the *ens realissimum*, and the *a posteriori* position of the cosmological proof be dropped. There are four fallacies, however, in the cosmological proofs besides this: (1) The application of the principle that everything contingent must have a cause, which is valid in the world of sense only, outside that sphere; (2) The inference of a first cause, based on the impossibility of an infinite ascending series of given causes in the world of sense, — an inference which the principles of the use of reason do not allow us to draw even in experience, while here we extend that principle beyond experience, whither that series can never be prolonged; (3) The false self-satisfaction of reason with regard to the completion of that series, brought about

by removing in the end every kind of condition, without which, nevertheless, no notion of necessity is possible, and by then, when any definite notions have become impossible, accepting this as a completion of our notion; (4) The mistaking the logical possibility of a notion of all united reality (without any internal contradiction) for the transcendental, which requires a principle for the practicability of such a synthesis, such a principle being applicable to the field of possible experience only. The physico-teleological proof possesses a certain plausibility and respectability, as being the oldest, clearest, most in conformity with human reason, and as adding life to the study of nature, but is lacking in apodictic certainty. The principal points of the proof are : (1) There are everywhere in the world clear indications of an intentional arrangement carried out with great wisdom, and forming a whole indescribably varied in its contents and infinite in extent; (2) The fitness of this arrangement is entirely foreign to the things existing in the world, and belongs to them contingently only, *i. e.*, the nature of different things could never spontaneously, by the combination of so many means, co-operate towards definite aims, if these means had not been selected and arranged on purpose by a rational disposing principle, according to certain fundamental ideas; (3) There exists, therefore, a sublime and wise cause (or many), which must be the cause of the world, not only as a blind and all-powerful nature, by means of unconscious fecundity, but as an intelligence, by *freedom;* (4) The unity of that cause may be inferred with certainty from the unity of the reciprocal relation of the parts of the world, as a portion of a skilful edifice, so far as our experience reaches, and beyond it, with plausibility, according to the principles of analogy. The argument leaves out of account the *substance* of the world, and so arrives not at a creator, but an architect of the world, who may be subject, to a large extent, to the nature of the material with which he has to deal. (To prove the contingency of

matter we have to resort to an *a priori* argument.) The argument, therefore, merely proceeds from a contingent arrangement in the world to a contingent cause,— for no one can pretend that omnipotence, the highest wisdom, absolute unity, constitute a cause proportionate to a world of which experience alone teaches us. The notion of the highest cause is, therefore. not given by the physico-theological proof. This proof has to be supplemented by the cosmological with its (transcendental) inference from contingency to necessity, and from necessity to the *ens realissimum.* — These three "proofs" being the only possible ones, and the last two being — considered as *a priori* proofs — reducible to the ontological one, it follows that the ontological proof is the sole *a priori* proof — if any proof so far transcending the empirical use of the understanding is possible at all — of the existence of the Ideal of Pure Reason, or God. But as no object can be given corresponding to such an ideal, since experience is conditioned, while by hypothesis the Ideal is unconditioned, there is no proof of the existence of God. Transcendental Theology, therefore, exists only as a criticism and test of our ideas of the highest reality, and would prove itself indispensable if by an ethico-theology the "flawless ideal" constituted by the notion of the Supreme Being were proved to possess objective reality. Necessity, infinity, unity, extra-mundane existence, eternity free from conditions of time, omnipresence free from conditions of space, omnipotence, etc., — all these are transcendental predicates, and their purified notions, which are required for every theology, can be derived from transcendental theology only.

Transcendental Theory of Method. — By the "Transcendental Theory of Method" (to take up the second grand-division of the "Critique of Pure Reason") is to be understood the determination of the former conditions of a complete system of pure reason. This involves — (1) a theory of the negative aspect of reason, which theory, as teaching merely how error shall be avoided, may be

styled the Discipline of Pure Reason; (2) a theory of the positive aspect of reason, which, as presenting the standard — a system of principles *a priori* — for the proper employment of reason, may be termed the Canon of Pure Reason; (3) a theory of pure reason as a system, which may be termed the Architectonic of Pure Reason; (4) a History of Pure Reason. According to the Discipline of Pure Reason, neither the dogmatic (*i. e.*, mathematical), nor the polemical or merely sceptical use, nor the hypothetical use of reason, is philosophical. Philosophical method differs in kind, not merely in degree, from mathematical; since philosophy deals with pure conceptions, not with intuitions. It cannot, therefore, begin with axioms and definitions, and it employs apodictic demonstration in a way peculiar to itself; *i. e.*, it is obliged to presuppose that which it demonstrates. (The proposition, that everything that happens has its cause, is presupposed in any proof of its truth, since it must be assumed as a condition of the experience by appeal to which its truth is shown. The proof or deduction of the categories was found to lie in the fact that only through them was experience possible.) The polemical (including the sceptical) use of reason stands in the way of an impartial, all-sided view of the principles of the understanding, and has value chiefly as a "true schoolmaster to lead the dogmatic speculator towards a sound criticism of the understanding and of reason." Hypotheses are inadmissible, except for polemical purposes, in dealing with questions of pure reason; since reason, independent of all experience, knows everything either *a priori* and as necessary, or not at all. There are three rules governing the proofs of Pure Reason: (1) To attempt no transcendental proofs before first having considered whence we should take the principles on which such proofs are to be based, and by what right we may expect our conclusions to be successful; (2) For every transcendental proposition only one proof can be found; (3) Transcen-

dental proofs must never be *apagogical*, or circumstantial, but always *ostensive*, or direct. According to the Canon of Pure Reason, the "highest aim to which the speculation of reason, in its transcendental employment, is directed, comprehends three objects, — the Freedom of the Will, the Immortality of the Soul, and the Existence of God." The purely *speculative* interest of reason in these questions is very small: the interest of them is almost wholly practical; *i. e.*, in so far only as they are related to our knowledge of what *ought* to be done. In relation to these questions, the proper mental attitude is that of moral belief. The ordinary understanding has just as much (and just as little) knowledge upon these questions as the wisest philosopher. The Architectonic of Pure Reason defines philosophy in a "Scholastic" or "logical" aspect as the system of all philosophical knowledge, and points out that there is also a "*universal*," or, so to say, "cosmical," notion of philosophy, according to which philosophy is the science of the relation of all knowledge to the essential aims of human reason. Philosophy is either pure or empirical. "The philosophy of pure reason is either propædeutic, inquiring into the faculties of reason with regard to all pure knowledge *a priori*, and called critique, or the system of pure reason (science), comprehending in systematical connection the whole (both true and illusory) of philosophical knowledge derived from pure reason, and called metaphysic." Metaphysic is either speculative or practical, — metaphysic of nature, or metaphysic of morals. The metaphysic of nature, so far as treating of understanding and reason in themselves and their connection with object (being) in general, is Ontology; so far as treating of the sum given of objects (nature), is Rational Physiology. The employment of reason in this rational study of nature is either physical or hyperphysical, or, more accurately speaking, *immanent* or *transcendent*. Transcendent Physiology has for its object either an internal or an external connection, both

transcending every possible experience: the former is the physiology of nature as a whole, or transcendental knowledge of the world; the latter refers to the connection of the whole of nature with a Being above nature, and is therefore transcendental knowledge of God. Immanent Physiology, which considers nature as object of experience, has two parts, — Rational Physic and Rational Psychology. The whole system of metaphysics consists, then, of — (1) Ontology; (2) Rational Physiology (including Rational Physics and Rational Psychology); (3) Rational Cosmology; (4) Rational Theology. Empirical Psychology is not properly a part of metaphysics: "it is a stranger only, whom one allows to stay a little longer until he can take up his own abode in a complete system of anthropology, the pendant to the doctrine of nature." In the History of Pure Reason it is made to appear that hitherto several paths to the goal of reason have been trodden in vain. Considered with reference to the object of knowledge, there are the sensualistic (Epicurus) and intellectualistic (Plato); as regards origin of knowledge, the empiricistic (Aristotle) and no-ologistic (Plato); as regards method, the dogmatic (Wolff) and sceptical (Hume). There remains the critical path, — the only one path still open, — which bids fair to lead to a goal as yet through long centuries unattained, though sought.

Critique of Practical Reason: The Notion of Practical Reason. — Reason is practical as subjected, or rather as subjecting itself, to an ideal, a moral law. The moral law we know as a fact of pure reason. From this fact we know also as a fact freedom, since the moral law could have its *ratio essendi* in freedom only. The moral law is the *ratio cognoscendi* of freedom, as freedom is the *ratio essendi* of the moral law. Reason as practical, demonstrates itself to be what as theoretical it was only in possibility, and thus the harmony of the two aspects of reason is made out.

The Analytic of Pure Practical Reason: The Principles of Pure Practical Reason. — Practical principles in

general are either material, which presuppose an object of the faculty of desire as the ground of determination, and so are empirical and subjective, or else formal, which presuppose only the idea of law, and hence are rational and objective. All material practical principles as such fall under the general principle of self-love, or private happiness, — they place the determining principle of the will in the *lower desires*, so that, if there were no *purely formal* laws of the will adequate to determine it, we could not have *any higher desire* at all. On the other hand, since the bare form of the law is the object of reason only, the will, which is determined by the merely formal practical principle, is independent of natural phenomena and their law, — the law of causality, — *i. e.*, is a perfectly free will. The fundamental law of such a will must be, Act so that the maxim of thy will can always at the same time hold good as a principle of universal legislation. (This law is a [the] "categorical imperative," — unconditional command.) Pure reason, that is to say, is practical of itself alone, — gives itself its law. This principle, the principle of the autonomy of the will, is the sole principle of moral laws. Heteronomy of the will — the being ruled by something foreign to itself — cannot be the basis of any obligation, but is, on the contrary, opposed to the principle thereof and to the morality of the will. The autonomy of the will, as distinguished from the mere independence of natural law, is positive, as distinguished from negative, freedom. The moral law proves that we belong to a supersensible as well as a sensible world, and permits us to view nature, in spite of its mechanism, as a supersensible system, — *i. e.*, a system having the determining principle of its causality solely in the pure faculty of reason.

The Notion of an Object of Pure Practical Reason. — The only objects of the practical reason are, the good and the evil, — the former being always an object *necessarily desired* according to a principle of reason, the latter an object *necessarily shunned*, according to a principle of reason. Whether or not any action which is possible to us in

the world of sense comes under the rule of reason which determines the good and the evil, is a question to be decided by the practical judgment. And instead of a schema, as in the case of the sensibility, we have the law as exhibited *in concreto* in objects of the senses: this law, thus exhibited, we may call a Type of the moral law. The rule of judgment according to laws of pure practical reason is this: Ask yourself whether, if the action you propose were to take place by a law of the system of nature of which you were yourself a part, you could regard it as possible by your will. It is therefore allowable to use the system of the *world of sense* as the type of a *supersensible system* of things, provided I do not transfer to the latter the perceptions and what depends on them, but merely refer to it the *form of law* in general, laws as such, being identical, no matter from what they derive their determining principles.

The Motives of Pure Practical Reason. — An action possesses legality only, and not morality, if, though it takes place according to the moral law, it be determined by a mere feeling — of whatever kind. Pure practical reason does not aim to destroy self-love, but merely to make it rational: it *does* "strike down" self-conceit, in order to make room for respect for the moral law as such. This is indeed a feeling, but a feeling having a purely intellectual cause, the only feeling which we know quite *a priori*, and the necessity of which we can perceive. Through this feeling the moral law becomes a subjective determining principle, — a real material principle. Respect for the moral law is, however, not so much a motive to morality as morality itself subjectively considered as a motive. It is to be observed that respect for the moral law as having to do with sensibility cannot be attributed to a Supreme Being, but to finite beings as such (the feeling of obligation is merely a concomitant of the fact that with the noumenal nature in man is joined a phenomenal). The (apparent) contradiction between freedom and the mechanism of nature in one and the same action is removed by the

consideration that, while phenomenally one's acts take place in accordance with natural law, they cannot noumenally or morally be regarded as his except in so far as they are rationally understood and adopted as his, or are referred to laws springing from his consciousness of himself as a thing in himself. A further difficulty in conceiving the combination of freedom with the mechanism of nature in a being belonging to the world of sense — a difficulty arising from the idea of God as the cause of the existence of substance — is resolved as follows: God does not create phenomena, and created noumena, as having a principle distinct from that of phenomena, are free as regards them.

Dialectic of Pure Practical Reason. — Reason in its practical use, as in its speculative, has a dialectic, since it seeks to discover the unconditioned for the practically conditioned. And though it possesses in the moral law the determining principle of the will, it seeks an unconditioned in a highest object of pure practical reason, — a *Summum Bonum*. Virtue is doubtless the supreme condition that can appear to us as desirable, and consequently of all our pursuit of happiness, and therefore the supreme good. But it does not follow that it is the whole and perfect good as the object of the desires of rational finite beings; for this requires happiness also, and that not merely in the partial eyes of the person who makes himself an end, but even in the judgment of an impartial reason, which regards persons in general as ends in themselves. Now, inasmuch as virtue and happiness together constitute the possession of the *summum bonum* in a person, and the distribution of happiness in exact proportion to morality (which is the worth of the person and his worthiness to be happy) constitutes the *summum bonum* of the possible world; hence this *summum bonum* expresses the whole, the perfect good, in which, however, virtue as the condition is always the supreme good, since it has no condition above it: whereas happiness, while it is pleasant to the possessor of it, is not in itself absolutely and in all respects good, but always presup-

poses morally right behavior as its condition. The antinomy of practical reason, resulting from the connection of virtue and happiness, is as follows: Either the desire of happiness must be the motive to maxims of virtue, or the maxim of virtue must be the efficient cause of happiness. The first is absolutely impossible, because maxims which place the determining principle of the will in the desire of personal happiness, are not moral at all, and no virtue can be founded on them. The second also is false, because the practical connection of causes and effects in the world as the result of the determination of the will does not depend upon the moral disposition of the will, but on the knowledge of the laws of nature and the physical power to use them for one's purposes. The solution of the antinomy is contained in the possibility that morality of mind should have a connection as cause with happiness (as an effect in the sensible world), if not immediate, yet mediate (*viz.*, through an intelligent author of nature), and moreover necessary. Necessary to the realization of the *summum bonum* in the world is a perfect accordance of the mind with the moral law — holiness (= worthiness to be happy), but holiness can be attained by a rational sensible being only in a *progressus in infinitum*, which presupposes endless duration of the *existence* and personality of the same rational being (which is called the immortality of the soul). The *summum bonum*, then, practically is only possible on the supposition of the immortality of the soul: consequently immortality, being inseparably connected with the moral law, is a Postulate of pure practical reason (by which is meant a *theoretical* proposition not demonstrable as such, but yet an inseparable result of an unconditioned *a priori practical* law). The moral law must also lead to the supposition of the existence of a cause adequate to the production of happiness (as the second element of the *summum bonum*), *i. e.*, to the postulation of the existence of God as the necessary condition of the possibility of the *summum bonum*. Happiness, being the condition of a rational being in the world with whom

everything goes according to his wish and will, depends on the harmony of physical nature with his whole end, and likewise with the essential determining principle of his will. There is in the moral law itself not the least ground for connection between morality and proportionate happiness. Such connection, however, is postulated by the *summum bonum*. Accordingly, the existence of a cause of all nature distinct from nature itself and containing the principle of this connection is also postulated. This supreme cause must contain the principle of the harmony of nature, not merely with a law of the will of rational beings, but with the conception of this law in so far as they make it the supreme determining principle of the will, and consequently not merely with the form of morals, but with their morality as their motive; that is, with their moral character. Therefore the *summum bonum* is possible in the world only on the supposition of a supreme nature having a causality corresponding to moral character. A being capable of acting on the conception of law is an intelligence (a rational being), and the causality of such a being according to this conception of laws is his will; therefore the supreme cause of nature, which must be presupposed as the condition of the *summum bonum*, is a being which is the cause of nature by intelligence and will, consequently its author, *i. e.*, God. The postulates of the practical reason, — freedom, immortality, and God, — while they do not extend our speculative knowledge, give objective reality to the ideas of speculative reason in general, and give it a right to notions, the possibility of which it could not otherwise venture to affirm. Nothing is added to the content of the notion of duty as such by these postulates. It alone binds me in the most perfect manner to act in unconditional conformity to the law.

Methodology of Pure Practical Reason. — By the methodology of the pure practical reason is to be understood the "mode in which we can give the laws of pure practical reason *access* to the human mind and *influence* on its maxims,

that is, by which we can make the objectively practical reason *subjectively* practical also." Unquestionably the only proper way to accomplish this important end is to place before the mind the purest exhibitions of the working, in historical personages, for example, of the pure moral motive. "The heart is freed and lightened of a burden that always secretly presses on it, when instances of pure moral resolutions reveal to the man an inner faculty of which otherwise he had no right knowledge,— the inward freedom to release himself from the boisterous importunity of inclinations to such a degree that none of them, not even the dearest, shall have any influence on a resolution for which we are now to employ our reason." Were it not the case that the exhibition of pure virtue can have *more power* over the human mind, and supply a far stronger spring even for effecting the legality of actions, and can produce more powerful resolutions to prefer the law from pure respect for it to every other consideration than all the deceptive allurements of pleasure or of all that may be reckoned happiness, or even all threatenings of pain and misfortune, no mode of presenting the law by roundabout ways and indirect recommendations would produce anything but mere hypocrisy and hatred or contempt of the moral law. Even the arousing of enthusiasm for a noble and magnanimous action is a spurious method of rendering objectively practical reason subjectively practical as well, — although it and other like inferior means may properly be employed to bring an "uncultivated or degraded mind into the track of moral goodness."

Critique of Judgment: Introduction. — This is a critical examination of the faculty which forms the connecting link between Understanding and Reason. It treats the questions: Are there *a priori* principles of Judgment? Does Judgment give rules *a priori* to the feeling of pleasure and pain, as Understanding prescribes laws to knowledge, and reason to desire? Critical search for the principle of æsthetic judgment is the main object of the Critique of

Judgment. It lies in the very idea of freedom to realize in the world of sense the end presented in its laws, and hence nature in its formal aspect as conformable to law must at least be capable of harmonizing with that end. There must, then, be a principle which unites the supersensible substrate of nature with the supersensible contained practically in the notion of freedom. And although that principle does not lead to a knowledge of the supersensible, and hence has no realm peculiarly its own, it yet enables the mind to make the transition to the practical point of view. There are three faculties of mind, — knowledge, feeling, and desire. Feeling stands between knowledge and desire, just as judgment (transcendental imagination) mediates between understanding and reason. Judgment is the general faculty of thinking the particular as contained under the universal. If the universal (the rule, principle, law) is given, then the judgment which subsumes the particular under it is *determining*. But if only the particular is given for which the universal is to be found, the judgment is merely *reflective*. There are in nature many forms or modifications of the universal transcendental notions that are unaffected by the *a priori* laws of the understanding. There must be laws for those forms, and such laws, as empirical, may be contingent so far as *our* intelligence is concerned, and may yet be regarded as following necessarily from a principle which is the condition of the unity of the multifarious forms of nature, although it is unknown to us. The reflective judgment, which is compelled to ascend from the particular to the universal, therefore, requires a principle of its own; and that principle it cannot borrow from experience because it is to unite all empirical principles under higher ones, and so make their systematic connection possible. The principle of judgment as reflective must therefore be conceived *as if* it were a unity imposed on nature by an intelligence different from ours, to enable us to reduce our knowledge of nature to a system of particular laws. We cannot, however, assert that

there actually is an intelligence of this kind, for judgment does not give a law to nature, but only to itself. "The principle of judgment in its relation to the forms of things which come under empirical laws in general is the adaptation of nature in its manifold variety to an end." (Nature is here conceived as if its manifold empirical laws were due to an intelligence.) The principle of nature's adaptation to an end is a transcendental principle, not a principle of knowledge of objects as such; the notion of objects so far as they are thought as standing under this principle is merely the pure notion of objects of possible experience in general. (It is therefore a necessary law of the reflective judgment.) It is a subjective principle or maxim of judgment, since the notion of adaptation is not a notion either of nature or of freedom, but merely represents the way in which we must necessarily proceed in reflecting on natural objects with a view to a thoroughly connected experience. With the attainment by reflective judgment of its end, — the reduction of the special laws of nature to unity of principle, — there arises a feeling of pleasure which is determined by a ground *a priori* for every one, and indeed from the mere adaptation of the object to our faculty of knowledge. In the apprehension of a sensible object are implied two relations,— a subjective and an objective: a relation of adaptation of the representation of the object directly to our mere faculty of perception, and a relation of adaptation of the form of an object as given in a notion to the object itself in its possibility. The former is not essential to knowledge, it being the mere feeling of pleasure or pain accompanying our knowledge of sensible objects. Adaptation here is purely æsthetic. In the other case it is logical. When the imagination, as the faculty of perception *a priori*, is found to be in harmony with the understanding, and a feeling of pleasure is thereby awakened, the object must be regarded as adapted for the reflective judgment. The object is then said to be beautiful, and the faculty which judges it to be so is called *Taste*. From the

adaptation of the form or even formlessness of objects to the notion of freedom in the subject, arises the emotion of the sublime. Hence two main divisions of the Critique of Æsthetic Judgment. When the notion of an object is given, the work of the judgment lies in the *presentation* of a perception corresponding to it. And we may either, as in art, endeavor to realize in a perception a notion set up by our imagination as an end, or we may make use of our notion of end in judging of certain natural objects (*e. g.*, organized bodies). In the latter case, not merely the form of a thing implies adaptation, but the thing itself is regarded as a *natural* end. Now, although subjective adaptation does not imply any notion of an object, we may still, by analogy with the notion of an end, attribute to nature as it were a regard for our faculty of knowledge; hence we may look upon *natural beauty* as the *presentation* of the notion of a formal or subjective adaptation, and *end* in *nature* as the presentation of a real or objective adaptation: the former being the object of æsthetic judgment or taste, the latter being judged logically by understanding and reason through notions. The Critique of Judgment has two parts,— Critique of Æsthetical Judgment; Critique of Teleological Judgment.

Critique of Æsthetical Judgment: Analytic. — The judgment that an object is beautiful is, like all other judgments, a judgment with reference to quality, quantity, relation, and modality. As regards quality, an object is beautiful when it is a source of disinterested satisfaction in us. As such it is to be distinguished from an object that is merely agreeable by the fact that the latter excites in us an interest in the existence of the object and a desire for the possession of it. It is to be distinguished from that which is good by the fact that the latter involves an interest in an object in relation to a preconceived end. In framing a judgment of taste, a judgment having reference to beauty, concerning an object, the mind is occupied solely with the effect of the object upon it in a con-

templative attitude. In quantity, the judgment of taste is universal, — a judgment which every one must make, or which, though subjective in the sense that beauty is a matter of feeling, does not depend upon private conditions or individual subjectivity. The idea of a beautiful object, in other words, is such as to give rise to that "free play of the faculties out of which knowledge arises, and thus the feeling produced by it possesses a universality for mind as such." The *relation* expressed in the judgments of taste is one of *adaptation to an end*, yet without reference to any definite design; or one of "purposiveness without purpose."[1] The pleasure excited by a beautiful object as beautiful "has in itself a causality to maintain the state of contemplation in the subject;" *i. e.*, to keep the faculties engaged upon the object without any further end. We linger over the contemplation of the beautiful because this contemplation strengthens and reproduces itself. This pleasure "has nothing to do with the idea of the power of the object over us, or its objective perfection as a specimen of its kind." As regards modality, the judgment of taste is necessary, though this necessity is of course not a necessity either of the theoretical or of the practical reason, but of common feeling, or of a certain *sensus communis*. In general, then, the beautiful is a sense of a free agreement, in the imagination, with law, or a conception of the understanding. A sense of agreement in the imagination with an idea of the reason — God, freedom, immortality — is a sense of the *sublime*. "The sense of the sublime is further characterized by being only indirectly pleasurable, since it involves the feeling of a momentary check upon the forces of life within us, followed by a more vehement outflow of those forces." It is above all especially characterized by the fact that, instead of being a feeling of harmony between an object and our faculty, it is the opposite, and this because an idea of reason can never be

[1] See Caird's "Critical Philosophy of Kant," vol. ii., from which this account of the Æsthetic Judgment has been drawn.

objectively realized by the sensuous imagination. While the beautiful makes us rest in nature with the anticipation of finding purpose or design in it, by "widening, not indeed our actual knowledge of natural objects, but our conceptions of nature, so that we regard it not as a mere mechanism, but as a kind of art," — the sublime makes us regard nature as incomplete and aimless in itself, but yet as presenting to us certain phenomena which "may be used to awake the feeling of a higher design in ourselves that is quite independent of nature." The idea of the sublime may be connected with our notions of quantity or of the forces of nature; the sublime is either the mathematically or the dynamically sublime. Magnitudes too great to be realized in imagination arouse in us a sense of the infinite, or of that which transcends all positive conditions. The reason, checked by the weakness of the imagination, reacts violently, and throws into consciousness the idea of the unconditioned, exciting a feeling of reverence, which we illogically transfer to an object of nature. The forces of nature are regarded as sublime "when we feel their greatness, and yet feel that they cannot overpower us;" that is, when the physical feeling of force is counteracted and overpowered in our minds by the idea of an unconditioned power. The feeling of the sublime is in reality a feeling of the superiority of spirit to nature. Technically characterized, the sublime is as regards quality painful, as regards quantity the absolutely great, as regards relation that which causes us to feel our essential superiority to nature, as regards modality a necessary condition. As beauty is apprehended by a faculty of feeling only, all art-creation is the work of genius.

Dialectic of the Æsthetic Faculty. — The antinomy of the æsthetic faculty is as follows: The judgment of Taste is not based on conceptions, for otherwise it would be a matter of controversy which might be decided by such conceptions (thesis); the judgment of Taste *is* based upon

conceptions, for otherwise we could not contend about it as we do when we claim that others should necessarily agree with us (antithesis). The solution of the antinomy is contained in the notion of the indefinite conception, or conception of reason (not of the understanding). That is, the ideas of the beautiful and sublime are of merely subjective origin and validity, and have their explanation in the supersensible. — The propædeutic to fine art — there is no "method" of the æsthetic faculty — lies in a culture of the higher, the characteristically human, faculties.

Critique of Teleological Judgment: Analytic of Teleological Judgment. — We may distinguish adaptation as formal and as real. The use to which a geometrical figure may be put as not being the condition of its very existence in thought is an illustration of formal adaptation. The adaptation displayed by a number of *things* presented as without me and as enclosed within definite limits, — *e.g.*, trees, flowers, and walks disposed in regular order in a garden — is real, and presupposes necessarily the notion of an end. These things are actually existing things which must be known empirically, and not merely by an idea of my own "determined *a priori* according to principle." — Adaptation may also be distinguished as internal (as in a work of art) or relative (as when the effect produced is regarded merely as *material* for the art of other possible natural beings). Adaptation of the latter kind is called utility in relation to man, advantage when we are speaking of other creatures. Relative adaptation, though it points hypothetically to natural ends, does not of itself justify an absolute teleological judgment (since everything may be regarded as a *means* to something else, on the principle of external adaptation). A thing is known as a *natural* end when it is known as capable of being explained non-mechanically only; *i.e.*, through a notion of reason. A thing exists as a natural end only when it is (in a double sense) *its own cause* and *its own effect.*

A tree produces another tree according to a well-known law. The tree so produced is of the same species: hence a tree, as continually self-produced, is, on the one hand, its own effect, and, on the other hand, its own cause; and by such continual self-production it perpetuates itself as a species. Again, the tree is self-productive even as an individual. The matter which the tree incorporates it previously works up into a specifically peculiar quality, which is not due to any mechanism outside of it; and thus it develops itself by means of a material which as assimilated is its own product. Thirdly, each part of the tree is self-productive, so that the preservation of one part is dependent on the preservation of all the rest. Leaves of a tree are products of the tree, and the tree is in turn dependent for its growth upon their effect on the stem; for if it is repeatedly denuded of its leaves, it dies. For a thing to be a natural end, its parts must be possible only in relation to the whole. As an end, the thing itself is comprehended under a notion or idea which must determine *a priori* all that is to be contained it. A natural end must — as distinguished from an artificial product — imply, in its self or its inner possibility, relation to an end: must be possible as a natural end, irrespective of any intelligent cause external to it. Accordingly, the parts of such a natural product, which combine in the unity of a whole, must be "reciprocally cause and effect of each other's form. Only an organized and *self*-organizing product is a natural end. Organized beings are the only things in nature which in themselves and apart altogether from their relation to other things can be conceived to exist at all only as ends. The notion of an *end of nature*, as distinguished from a practical end, first obtains objective reality from a consideration of such beings, and apart from them, the teleological consideration of nature as a special principle of judgment would have no justification whatever." The principle and definition of internal adaptation is: *An organized product of nature is one in which all the parts*

are reciprocally end and means. Nothing in it is useless, purposeless, or ascribable to blind mechanism. This principle finds its occasion in the methodical observation of experience; but as it affirms the adaptation to be of universal necessity, it cannot be derived from experience, but must be *a priori.* But as ends exist only as an idea in the judging subject, not in any efficient cause, it is merely a regulative principle or maxim for judging of the internal adaptation of organized beings. A natural end is a very different thing from an end of nature. The latter presupposes an ultimate end (*scopus*) of nature, which must be sought beyond nature. An end of nature is not a mere natural product. The notion of natural end is necessarily demanded by organized matter only; but when once obtained, it necessarily leads to the idea of the whole of nature as a system of ends, and to this idea all natural mechanism must be subordinated in accordance with the principles of reason. It in no way interferes with the principle of mechanical causality, nor does it entitle us to regard anything whatever as a purposive end of nature. Even the beauty of nature, *i. e.*, its harmony with the free play of our faculties of knowledge, as apprehending and judging of its appearance, may be regarded as a sort of objective adaptation of nature as a systematic whole, of which man is a member, after the teleological judgment by natural ends as applied to organized beings has brought us to the idea of a great system of ends of nature.

Dialectic of Teleological Judgment. — It may very well happen that judgment in its reflection proceeds from either of two principles, *viz.*, that given to it *a priori* by the understanding, or that which on occasion of particular experiences calls reason into play to estimate corporeal nature and its laws by a special principle. Hence it comes that these two maxims seem to be mutually exclusive, and there arises a Dialectic which leads judgment to err in applying the principle of reflection. The first maxim of judgment is the thesis:

All production of material things, and the forms of material things, must be judged as possible on purely mechanical laws. The second maxim is the antithesis: Some products of material nature cannot be judged as possible on purely mechanical laws (but require a quite different law of causality, namely, of final cause). Now, if these regulative principles in the investigation of nature are converted into constitutive principles, determining the possibility of objects themselves, they will run thus: All production of material things is possible on purely mechanical laws (thesis). Some production of material things is not possible on purely mechanical laws (antithesis). These last propositions constitute an antinomy; not so the first two: they are not necessarily contradictory. The notion of natural end is merely a notion of the reflective judgment, and due to the peculiar character of our intelligence. We must look out for a certain contingency in the nature of our intelligence as related to its faculty of judgment, by the discovery of which we may learn how our intelligence differs from other possible intelligence. This contingency is readily found in the *particular* which judgment is to bring under the universal supplied by notions of the understanding; for the universal of *our* understanding does not determine the particular, and it is contingent in how many ways different things which agree in a common mark may present themselves to our observation. For a perceptive intelligence there would not be that contingency in the adaptation of *particular* laws of nature to understanding which makes it so hard for us to reduce the multiplicity of nature to the unity of knowledge. In order to think the possibility of an adaptation of natural things to our faculty of judgment, we must at the same time conceive of another intelligence by reference to which, and apart from any end attributed to it, we may represent as *necessary* that harmony of natural laws with our faculty of judgment, which for our intelligence can be thought only through the medium of ends. For discursive intelligence, like ours, the idea of the parts does not necessarily presup-

pose the whole, but rather the *idea* of the whole explains the form of the whole and the connection of the parts. Now, such a whole is an effect or product, the *idea* of which is treated as the *cause* that makes it possible, and such a product is called an end. It therefore arises from the peculiar character of our intelligence that we regard certain natural products as due to a different sort of causality from that of material laws of nature, namely, that of ends and final causes. This principle, therefore, does not determine the manner in which things themselves, even when they are regarded as phenomena, are capable of being produced, but merely the manner in which our intelligence can alone judge them to be produced. If we make a distinction between phenomena and noumena, the principle of the mechanical derivation of natural products exhibiting adaptation is quite consistent with the teleological, but by no means enables us to dispense with it. "In the investigation of a thing which we are forced to regard as a natural end (an organized being), we may try all the known and yet to be discovered laws of mechanical production, and may even hope to make good progress in that direction, but we need never hope to get rid of the quite different principle of causation by ends in our explanation of natural products. No human intelligence, and indeed no finite intelligence, however it surpass ours in degree, need expect to comprehend the production of even a blade of grass by purely mechanical causes. The teleological connection of causes and effects is absolutely indispensable in judging of the possibility of such an object. There is no adequate reason for regarding external phenomena as such from a teleological point of view; the reason for it must be sought in the supersensible substrate of phenomena. But as we are shut out from any possible view of that substrate, it is impossible to find in nature grounds for an explanation of nature, and we are compelled by the constitution of our intellectual faculty to seek for the supreme ground of teleological connection in an original Intelligence as cause of the world."

Appendix on Method: Moral Proof of the Existence of God. — "Moral teleology has to do with the relation of our own causality to ends, and even to an ultimate end necessarily set by us as our own goal in the world, as well as with the possibility of realizing that end, the external world being what it is. The question necessarily arises whether reason compels us to seek in a supreme intelligence outside of the world for a principle which shall explain to us even the adaptation of nature to an end relatively to the law of morality within us. There is, therefore, a moral teleology which is concerned on the one hand with the *nomothetic* of freedom, and on the other with that of nature. . . . From the teleological point of view, it is a primary proposition admitted by every one that there can be no *ultimate end* at all presupposed by reason *a priori*, unless that end be man *under moral laws*. A world consisting of mere lifeless beings, or even living but unintelligent beings, would have no meaning or value, because there would be in it no intelligent being to appreciate its value. Again, suppose that in the world there are intelligent beings whose reason enables them to value existing things for the pleasure they bring, but who have not themselves any power of imparting a value to things originally by means of freedom: then, there will indeed be relative ends, but no absolute or ultimate end, for the existence in the world of such intelligent beings can never have an end. Moral laws, however, are of this peculiar character that they prescribe for reason something as an end without any condition, and therefore exactly as the notion of an ultimate end requires. The existence of a reason which may be for itself the supreme law in the relation of ends, in other words, the existence of rational beings under moral laws, can alone be conceived as the ultimate end of the existence of the world. On any other supposition its existence does not imply a cause acting from any end, or it implies ends but no ultimate end." Moral law prescribes as goal of our efforts the *highest* good possible *in* the *world* through freedom. The highest good possible in the world

is happiness, and this end we must seek to advance as far as in us lies, but always under the objective condition of the harmony of man with the law of morality as worthiness to be happy. "But it is impossible, in consistency with all the faculties of our intelligence, to regard the two requisites of the ultimate end presented to us through the moral laws as connected by merely natural causes, and yet as conforming to the idea of that ultimate end. We must therefore suppose a moral cause or author of the world in order to set before ourselves an ultimate end conformable to the moral law; and in so far as the latter is necessary, so far, *i. e.*, in the same degree and on the same ground, the former also must necessarily be admitted; it must, in other words, be admitted that there is a God. . . . The ultimate end, as merely a notion of our practical reason, is not an inference from the data of experience for the theoretical explanation of nature, nor can it be applied in the knowledge of nature. Its only possible use is for practical reason in relation to moral laws." We have a moral ground for representing in the world an ultimate end of creation, but we cannot "assume that in an ultimate end we have a reason for admitting not merely a moral ground or ultimate end of creation (as effect), but also a *moral being* as original ground of creation. But we may certainly say that according to the *constitution of our reason* we cannot make intelligible to ourselves the possibility of an adaptation relative to the *moral law*, and to its object as it is in this ultimate end, apart from an author and ruler of the world, who is also a moral lawgiver. . . . To prevent a very natural misunderstanding, these two points should be carefully borne in mind. In the first place, we can *think* the attributes of the Supreme Being only by analogy. How, indeed, should we attempt to investigate directly the nature of a Being to whom nothing similar is given in experience? Secondly, in thinking the Supreme Being through these attributes, we do not thereby *know* him, nor can we theoretically predicate them of him; for to contemplate that Being as he is in himself, reason as speculative must take the form of determining judgment."

Metaphysics. — We pass now to Metaphysics,[1] (1) of Nature, (2) of Morals.

The Metaphysical Foundation of Natural Science.[2] *Introduction.* — The science of nature, or the sum total of phenomena, has two main divisions corresponding to the divisions of sensibility (*i. e.*, outer and inner sense); namely, the doctrine of body and the doctrine of soul. It is either empirical (dealing with mere facts) or rational (dealing with laws), the latter alone being science in the proper sense of the term. Rational science, again, has two parts corresponding to a purely *a priori* method of treating its subject and to a treatment of it according to *empirical laws*. Rational science in the former sense is the metaphysics of nature. The metaphysics of nature, again, has two branches, one of which (the transcendental branch) treats of the laws rendering possible the conception of nature in general, the other of some particular empirical conception, *e. g.*, the empirical conception of matter. In every special natural doctrine only so much science proper is contained as there is mathematics. Chemistry and psychology are, for this reason, not properly natural *sciences*. A *pure* (transcendental) philosophy of nature in general is possible without mathematics. That there may be a real (*i. e.*, mathematical) science of body there must be certain "principles of the construction of conceptions belonging to the possibility of matter in general." These are furnished by a pure philosophy, a metaphysics of corporeal nature. The fundamental attribute of a thing that is to be an object of external sense must be motion, for only by motion can this sense be affected, and natural science is (therefore) throughout either a pure or an applied doctrine of motion. The Metaphysical Principles of Natural Science may therefore be brought under four main divisions, of which the *first*, "treating of motion considered as pure quantum according to its composition, without any

[1] See above, p. 317.

[2] See the translation of Kant's "Metaphysische Anfangsgründe der Naturwissenschaft," by Belfort Bax.

quality of the movable," may be termed *Phoronomy;* the *second,* "regarding motion as belonging to the quality of the matter under the name of an original moving force," may be called *Dynamics;* the third, treating of "matter endowed with force, conceived as, by its own reciprocal motion, in *relation,*" is *Mechanics;* and the fourth, treating of motion (or rest) merely in reference to the mode of presentation or modality, or, in other words, as determined as phenomenon of the external sense, is *Phenomenology.*

Phoronomy. — Matter is the movable in space. Space which is movable is relative; space which is immovable and a condition of all motion is absolute. All motion that is an object of experience is relative. Motion is change of external relations to space; rest is permanent presence in the same place. Rest cannot be regarded as motion, which is zero in value, as zero does not admit of being constructed. Rest may be constructed as motion of infinitely small velocity throughout a finite time. Every motion as an object of possible experience may be viewed at pleasure as motion of a body in a space that is at rest, or as rest of the body and motion of the space in the opposite direction, with equal velocity, etc.

Dynamics. — Matter fills a space, not by its mere existence, but by a special moving force. This is demonstrated as follows: The penetration into a space is a motion. The resistance to motion is the cause of its diminution, and also its change into rest. Now, nothing can be connected with any motion as lessening or destroying it but another motion of the same movable in the opposite direction. Thus the resistance offered by matter in the space which it fills to all impressions of another matter is a cause of the motion of the latter in the opposite direction; but the cause of a motion is called moving force. Thus matter fills space by moving force, and not by its mere existence. Matter can be compressed to infinity, but can never be penetrated (or deprived of its extension) by matter; since for the penetration of matter a compression into an infinitely small

space, and therefore an infinitely compressive force, is required, which is impossible. Besides the special moving force by which matter fills space (a repulsive force) there is required in matter a force of attraction. Contact, in the physical sense, is the immediate action and reaction of impenetrability. Action at a distance is possible even without intermediate matter or through empty space; the attraction essential to all matter is an immediate effect on other matter through empty space. The repulsive force by means of which matter fills a space is merely a superficial force. The original attractive force in which the possibility of matter itself rests, extends itself directly through the universe to infinity from every part of the same to every other part. All that is real in the objects of our external sense, — that, namely, which is not mere determination of space (as place, extension, figure),— must be regarded as a moving force; there is no mere solid or absolute impenetrability, no empty mediate spaces within matter.

Mechanics. — All mechanical laws presuppose dynamical. The quantity of matter may be estimated in comparison with every other only by the quantity of motion at a given velocity. No difference can obtain between "living" and "dead" force (since all force is a function of motion). The first law of motion is, "With all changes of corporeal nature the quantity of matter remains on the whole the same." The demonstration of this law is as follows. "In every matter the movable in space is the ultimate subject of all accidents inhering in matter, and the mass of this movable is the quantity of substance. Thus the amount of matter as a substance is merely the mass of the substances of which it consists. Hence the quantity of matter is thereby neither increased nor diminished, but remains the same as a whole." The second law of motion is, All change of matter has an external cause: every body remains in its state of rest or motion in the same direction and with the same velocity, if not compelled by an external cause to forsake that state. This is true, since matter has no abso-

lutely internal determinations and grounds of determination (matter as such is lifeless). The third law of Mechanics. In all communication action and reaction are always equal to one another. This appears from the principle of "universal metaphysics," that all action is reciprocal action. There is no such thing as a *vis inertiæ:* motion can resist nothing except opposite motion. Inertia of matter, or mere incapacity to move itself, is not a cause of resistance.

Phenomenology. — The rectilinear motion of matter is in respect to an empirical space (as distinguished from an opposite motion of the space), a merely possible predicate. The circular motion of a matter, as distinguished from the opposite motion of space, is a *real* predicate of the same; while, on the other hand, if the opposite of a relative space be taken instead of the motion of the body, there is no real motion of the latter, but a mere illusion. In every motion of a body whereby it is moving in respect of another, an opposite and equal motion of the latter is necessary.

The Metaphysics of Morals.[1] — Man is presented to himself in two (and only two) ways, — by outer sense and by inner sense. In the former aspect he is a subject of the law of right, in the latter of the law of morals; "right" having to do with man's actions, "morals" with his motives.

Theory of Right. — Self-conscious beings, being ends in themselves, and not mere means, may come into seemingly irreconcilable opposition. The great problem of Right is to prevent conflict and to secure for all individuals the freedom to which they lay claim as ends in themselves. To this end it is necessary that there be reciprocal recognition by individuals of the will of each. "Legal right is, therefore, just the whole compass of the conditions on which the independent will of the one can be united with the independent will of another according to a universal law of freedom." The idea of freedom according to a

[1] See Caird's "Critical Philosophy of Kant" (vol. ii.), from which this account of the substance of Kant's Metaphysics of Morals is borrowed.

universal law requires that when a particular use of freedom is a hindrance to a freedom according to universal law it be counteracted by compulsion; and, strictly speaking, right must have a certain basis in the possibility of compulsion. "Right and claim to apply compulsion are one and the same thing." Right inheres in persons, and in all persons equally. The right to things comes into existence by their being used as expressions of personality; thus they become parts of man's "intelligible" existence, they become an "intelligible possession," the interference with which is a violation of personality. The right in things is therefore an exclusive right. A right acquired by an act of mine, coupled with the neglect of another, is a "right in thing" (*jus in rem*). A right acquired through the assent of another is a "right in person" (*jus in personam*), which is a right, not against all, but against one person. This right involves as condition a contract, expressing two preparatory and two constitutive acts of will, *viz.*, "an offer and an expression of willingness to receive it, and a promise and an acceptance of it." A third sort of right, *viz.*, "right in person as thing" (*jus realiter personale*) occurs in the relation of husband and wife, parent and offspring, etc. Such a right is a reciprocal right. The foregoing three rights form the substance of natural right (*jus naturale*), or "right flowing from the rational principle in every man." Natural right is not possible to men outside of civil society. There is required for its establishment and maintenance a collective universal will possessing the power of compulsion. This will comes into being by the formation of a contract "whereby all members of the people give up their freedom, to take it up again as members of a commonwealth, *i. e.*, of a people regarded as a State. We are therefore to say that a man in the State has sacrificed a *part* of his innate external freedom to secure an end; we are to say that he has surrendered the whole of his wild and lawless freedom in order to find it all gain, undiminished, in a dependence regulated by law." The act of forming the State is a vol-

untary act of those performing it, and the State is therefore merely a higher expression of the self-determination of reason, — and an expression to be recognized by those entering into the State. The social contract, once entered into, is holy and inviolable; the dictum that "all powers be ordained of God," though not meant to express the historical basis of the civil constitution, expresses an idea which is a principle of practical reason, that we ought to obey the existing legislative power, be its origin what it may. Since the State is an embodiment of the principle of self-determination, its legislative power must rest with the people; the ideal form of State is, therefore, the republican form of State. But the republic must be a representative system, since only under a representative system is it possible to separate the legislative from the executive power, — a union of which powers in one and the same person or persons would be comparable to a union in a single proposition of the major premise, which expresses the general rule, with the minor, which subsumes the particular under it. The executive power should be *ultimately* under the control of the legislative. All public institutions should be directly subordinate to the State. The right of free speech should be admitted as an inviolable right of citizens. "To deny to them such freedom is not only to take away from them all claim of right in relation to the sovereign, but to withdraw from the sovereign — who issues commands to his subjects as citizens only because he represents the universal will of the people — all knowledge of wrongs which he would redress if he were properly informed, and so bring him into contradiction with himself." The sovereign has no possessions "except himself;" for if he had anything of his own, and so stood alongside of others in the State, a dispute between him and them would be possible, and there would be no judge who could be called in to settle it. The principle that the individual is self-determining and responsible for his own deed makes it necessary that punishment be meted out according to the

lex talionis ("law of retaliation"), that, *e.g.*, in the case of murder, the punishment be (except in very few classes of instances) death. A *jus gentium*, or law of nations, founded on the *jus civile*, is not a wholly impossible ideal. The whole of the *jus gentium* is contained in the principle to "avoid everything which could make the state of nature, the state of actual or possible war, permanent; and, on the other hand, to act even in the state of nature on those maxims out of which a lasting peace is most likely to spring, even if we are not yet able definitively to secure it," though in place of the positive idea of a World-Republic, we must be satisfied with the *negative* substitute of a continually *advancing league* of States to prevent war. And such a league might and should among other things make possible citizenship of the world. The foundation-principle in all political philosophizing should be that the practicable should be measured by the right, not the right by the practicable. "What is right is ascertainable, what is practicable according to the laws of nature is beyond calculation." Free discussion should be allowed to philosophers, in order that the State may be able to profit by their wisdom.

Theory of Virtue. — As right depends on public compulsion, so morality depends on private compulsion, or self-compulsion. I am bound by my (peculiar) nature to have an end or ends which I as a free being propose for myself. (Besides this end or these ends, there are others given me by objects. The former alone are moral ends.) Of moral ends there are two classes, contained in the duty of *perfection* of *self* and that of seeking the *happiness* of *others*. (Towards God there are no *special* duties, all duties being duties towards him; and so-called "duties towards the lower animals" are merely forms of duty towards ourselves.) The duty of promoting the happiness of others consists, not in seeking their perfection (for no one can seek the perfection of another) or their mere pleasure, but rather in avoiding conduct that might "mislead them into

actions for which their conscience might afterwards give them pain." We have to distinguish "obligations of right," or obligations to do or not to do certain actions, and "obligations of virtue," or obligations to follow certain maxims; or "perfect" and "imperfect" duties. *Merit* attaches only to the former. Governing the estimate of duties are three special rules: (1) There is but one ground of obligation for each duty; (2) Vice and virtue must be treated as differing, not in mere degree, but in kind; (3) We must not estimate duty by our capacities, but our capacities by our duties. Duties towards self may be classed as "positive," relating to "preservation of moral health," and "negative," relating to "moral improvement;" or, according to a different principle, as duties of man "towards himself as an animal who is also a moral being, and duties towards himself purely as a moral being." The negative duties in relation to our animal nature are the duties of self-preservation, preservation of the species, the "maintenance of his faculty for the purposeful use of his powers, and for the enjoyment of life." The negative duties to self as a moral being are veracity, humility, and a duty opposed to avarice. The positive duties of man to himself are comprehended in the duty of physical, intellectual, and moral self-development. Our duties to others are duties of respect and of love. These are in a certain sense antagonistic, since by means of the principle of mutual love men are called on reciprocally to approach each other, while they by the principle of respect which they owe to each other, are called on to preserve a certain distance from each other. The duties of love or benevolence are beneficence, gratitude, and sympathy. Respect has as opposites the vices pride, evil-speaking, and readiness to mock and insult.

Religion within the Limits of Mere Reason.[1] — The doctrine of religion, within the limits of mere reason, has the four principal parts, — (1) Concerning the Radical Evil in

[1] See Caird's "Critical Philosophy of Kant."

Human Nature; (2) The Conflict of the Good Principle with the Evil for the Mastery in Man; (3) The Founding of a Kingdom of God upon Earth; (4) True and False Religious Service, or Religion and the Priesthood. (1) There is in human nature a natural bias towards evil, and a consciousness of it as such. This bias does not lie merely in the sensuous nature, for this nature "contains too little" for such a bias; nor in the rational nature of man, for this makes of man neither more nor less than a devil. "The distinction whether a man is good or bad cannot lie in the difference of the motives which he takes up into his maxims (*i. e.*, not in the matter of such motives), but only in their relative subordination (*i. e.*, in their form). The question is simply which of the two kinds of motives he makes the condition of the other. Man, even the best man, is bad only because he perverts the moral order of the motives in taking them up with his maxims, makes the motives of selfism the *condition* of obedience to the moral law, whereas the latter ought to be made the universal maxim of will, as the highest condition of the satisfaction of the former. Under this perversion the idea of happiness, which is only the generalization of the ends of desire, takes that central place which properly belongs to the moral law as the principle of unity for all our maxims" (Caird). This perversion is due to an "intelligible act, which we can know only through reason, and not as empirically given in sense under conditions of time." This act is incomprehensible, as also that by which man turns from evil to good. The conversion (in the will) is an instantaneous act: it can be realized in the phenomenal nature only by a *progressus in infinitum.* (2) The evil principle in man can be counteracted only by the spiritual power within us from which it originates, but in the form of moral perfection, "God-pleasing Humanity," by virtue of which man is a Son of God, or Christ. Inasmuch, nevertheless, as man, though he has turned from evil, suffers the penalty of deeds while evil, there is truth in the Scripture

representation that the guiltless Son of God bears as a substitute the guilt of sinful humanity, and so redeems humanity. All the dogmas of Christianity may, like this of the Atonement, be interpreted as an expression of the moral revolution whereby the bias of man to evil is overthrown; and if so, it is well for us to "continue to pay reverence to the outward vesture, that has served to bring into general acceptance a doctrine which rests upon an authority within the soul of every man, and which, therefore, needs no miracle to commend it to mankind." Miracles were useful at the first introduction of the Christian faith: they have no importance for us. (3) That the good principle may permanently triumph over the evil, there is required "a union of men to guard against evil and to further good, a permanent ever-extending society for the maintenance of morality." As it was the duty of mankind to abandon the *legal* state of nature, and to enter into a political union for the maintenance of justice, so we may say that it is their duty to leave the *ethical* state of nature, and combine into a church for the furtherance of moral virtue. And as it is only a universal republic which can finally put an end to war and fully realize the legal unity of men, so it is only a universal church which can realize the *moral* unity of men. Such a universal republic, according to laws of virtue, however, differs from the civil society in this, that no force can be the instrument of its realization; for violence can do nothing to secure a moral end. A universal church implies a union of men which is (in regard to the category of quantity) *universal* (independent of accidental differences); (as regards quality) absolutely pure (as regards the motives by which the members of it are actuated); (as regards relation) free both in the relation of the members to each other and to the community as a whole; and (as regards modality) *unchangeable* (as to the principles of its constitution). Such an institution can only be approximated. The history of religion is a history of the conflict between the religion of "divine service" and the

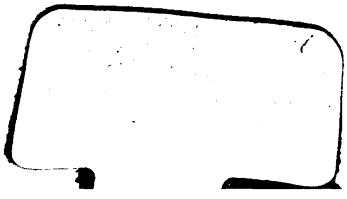
religion of "morality," and especially the progress whereby the latter gains more and more the mastery of the former. "As we cannot deny the *possibility* of the divine origin of a book which in a practical point of view contains nothing but divine truth, . . . as it seems impossible that *without* a sacred book, and a church-faith grounded on it, a religious union of men can be formed and maintained; and as we cannot expect, in the state of enlightenment we have now reached, that a new revelation should be introduced with new miracles,— it is best to take the book which we find generally recognized as sacred, and make it the foundation of the teaching of the church." — The Christian mysteries are all merely symbolic. (4) True service is obedience to the moral law; false, is priestly and ritual service. False service is positive and arbitrary, not merely in form (as revealed religion of necessity must be), but also in matter. A true revealed religion is identical with natural religion in *matter*, though not in form. All the services of the church *may* be of use as means of piety, — baptism and the Lord's Supper have a relative value; all means of grace are ways of working, not upon God, but upon ourselves.

Result. — The system of Kant is, on the very face of it, a synthetic attempt, — an attempt of the sort peculiarly characteristic of the Third Period of Modern Philosophy. Kant will reconcile (sceptical) empiricism with (dogmatic) rationalism, unite object and subject in experience, consciousness and self-consciousness. All this he attempts rather from the side of rationalism than of empiricism, as the necessities of the case required. As regards the knowledge of mere phenomena, Kant's attempt may be said to have been successful on the whole,— Kant, in other words, provided, in his doctrine of sense and of the understanding, a fairly substantial philosophic basis for the natural sciences. As regards noumena, Kant certainly has the credit of having first really brought to light in modern philosophy (perhaps we may as well say in the whole history of philosophy) the fact of spiritual freedom, as well as that of the predomi-

nance of self-consciousness in our perception of beauty and order in art and in nature; but it is nevertheless true that in relation to the noumenal Kant's system is (even avowedly) little else than a pseudo-reconciliation of opposites, a purely subjective reconciliation of them in moral and æsthetic intuition. The fact that Kant does not clearly get rid of the thing-in-itself, that freedom, immortality, God, are merely *postulates*, that nature and art are, only for *our* intelligence, manifestations of absolute spirit, make his system one of intuitionalistic rationalism (or, in the more common designation, subjective transcendental idealism). In a purely historical regard, at least, the name of Kant (it is scarcely necessary to say) is the most important in the Third Period of Modern Philosophy. The number of thinkers, since Kant wrote, who have not been influenced by his thought, is comparatively small.

§ 114.

The Reception of the Kantian Philosophy. — Although the Kantian philosophy was hardly of a character to become a popular doctrine, it gradually obtained a very wide audience, and before the end of the last century, or within about twenty years after its first promulgation, was not only taught in most of the German universities, but was eagerly studied outside the universities, even, it is said, by German women; and it was beginning to be known in Holland, England, and France. It had opponents as well as disciples (and semi-disciples): it was opposed "in the name of revealed religion, of older schools of metaphysics, particularly the Leibnitzean and Wolffian, of empirical and sceptical schools of philosophy, of mere sentiment." We give the names of the more important Kantians, Semi-Kantians, and Anti-Kantians. (1) Kantians were Johann Schulz (1739–1805), professor of mathematics and "second court-preacher" at Königsberg; Karl Leonhard Reinhold (to be noticed later); Karl Christian Ehrhard Schmid (1761–1812), professor at Giessen and Jena; Christian

Gottfried Schütz (1747–1832), professor at Dederstedt and Jena, and editor, together with Hufeland, of the Jena "Allgemeine Literaturzeitung," — the chief literary organ of Kantism in Germany; Jacob Sigismund Beck (to be spoken of later); and the poet Schiller (also to be noticed hereafter). (2) Semi-Kantian were: Johann Heinrich Abicht (1762–1816), professor at Erlangen and Wilna; August Wilhelm Rehberg (1757–1836); Christian Jacob Kraus (1753–1807), professor at Königsberg; Wilhelm Traugott Krug (1770–1842), Kant's successor at Königsberg, and professor also at Leipzic,—a man of encyclopædic learning rather than depth of thought, who exerted a very considerable influence for the spread of interest in philosophical studies; Friedrich Bouterwek (1766–1828), professor at Göttingen; Georg Hermes (1781–1848), professor (of theology) at Bonn; Bernhard Bolzano (1781–1848), professor in Prague; Jacob Friedrich Fries (to be noticed hereafter). (3) Anti-Kantian were: Christian Garve (1742–1798), a *littérateur;* Johann Heinrich Feder (1740–1821), professor at Göttingen and joint author, with Garve, of the most important of the early criticisms of Criticism; Cristoph Meiners (1747–1810), professor at Göttingen, and editor, with Feder, of a journal (called the "Philosophische Bibliothek") established to oppose Kantism; Johann August Eberhard (1739–1809), professor at Halle, and editor of a "Philosophisches Magazin" (1787–1792), conducted for the purpose of combating Criticism; Johann Christoph Schwab (1743–1821), professor in a school at Stuttgart; Ernst Platner (1744–1818), professor in the University of Leipzic; and Gottlob Ernst Schulze, Salomon Maimon, Johann Georg Hamann, Johann Gottfried Herder, Friedrich Heinrich Jacobi, all of whom will be spoken of hereafter.

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